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Advanced Management

MODERN MANAGEMENT

IN THIS ISSUE

Vital Management Questions

- *Can Budget Forecasting be Improved?*
- *Can Forms Control be Decentralized?*
- *Do Errors Occur in Stop Watch Readings?*
- *Can Americans Win Business Success Abroad?*
- *Are Materials Handling "Savings" Real or Imaginary?*
- *Find Markets to Fit Products or Make Products to Fit Markets?*

MAY 1950

The Advancement of Management

MANY of the Society's members labelled the Annual Conference held last fall as "most outstanding" and "one which set an all-time high."

The Fifth Annual Time Study & Methods Conference just completed was by far the largest ever held. Five years ago the First Time Study Conference was held in the Hotel New Yorker, but subsequent Conferences outgrew that Hotel's facilities. The Conference was moved three years ago to the Hotel Pennsylvania (now Statler), and the last meeting taxed the Statler's facilities to the limit. Every available chair was placed in the Ballroom and balcony and others stood along the walls. The attendance was 1,950—650 above the attendance in 1949. Many men from policy management levels, who had never before attended, were present.

WHILE the Time Study and Methods Conference was in progress in New York, the Washington Chapter was holding a Government Management Conference. This was one of their most successful and best attended in years. Just a few days earlier the St. Louis Chapter presented Ralph Barnes in a two-day clinic on Time Study Methods. Enrollment in the Clinic was at capacity and most successful.

On May 16-17 the Cleveland Chapter is holding a Management Clinic. Thirteen other management organizations have joined hands with S.A.M.'s Cleveland Chapter to make what they hope will be the outstanding management event of the year in Cleveland.

The Baton Rouge Chapter's program includes furnishing speakers from policy management to Louisiana State University classes and to other groups who want speakers on management subjects. This program is being expanded this year.

Indianapolis holds a yearly conference on Leadership for Supervisors, trying to focus the attention of the supervisors and the top management of their companies on the all important function of leadership.

SEVERAL years ago, Philadelphia held a thoroughly successful Workshop Conference. This Conference was so well received that the Chapter now holds one each year.

CINCINNATI has in progress now a series of Conferences on Group Dynamics for top management. These are being conducted by Dr. Douglas McGregor, President of Antioch College. Cincinnati also has developed an Advanced Management Course in cooperation with the University of Cincinnati for inauguration in the fall. Enrollees will come from top, policy management levels. The course is already fully subscribed.

NEW ORLEANS, the newest Chapter to organize and come into our official S.A.M. family, plans the organization of top management roundtables, in addition to an ambitious program to help the two Student Chapters which they sponsor realize the full benefits of S.A.M. associations.

Under the sponsorship of S.A.M. Senior Chapters all over the country, 93 Student Chapters have developed in Schools of Business and Industrial Engineering. These Student Chapters are contributing to the development of the future management leaders of this country. S.A.M. is proud of its Student Chapters and members.

These are only a few of the examples which could be cited; but they serve to indicate that S.A.M., through its National and Chapter programs, is providing the means, the vehicle for Advancing Management. It is heartening to see the ever increasing interest and support which top policy management is giving our program. The sharing of ideas, the pooling of thoughts, the group approach to common problems, and the thirst of the individual member of management for knowledge continues to give great impetus to our selfless zeal for our one purpose—*to advance the science of management.* The Society is contributing increasingly and effectively to that end.

IT IS obvious from these activities that the Nation's professional managers are appreciating more and more that *management is the development of people, not things,* and that we are coming ever closer to Gantt's definition of management — "the means of getting people to work together toward a common goal."

DILLARD E. BIRD

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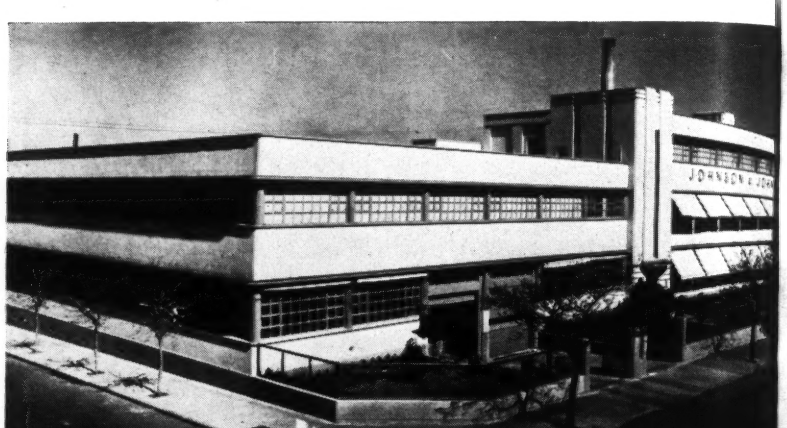
The Human Factor In Business Expansion Abroad

By D. R. KNAPP
Johnson & Johnson

The Human relations foundation upon which an enterprise is built is just as important as its architectural foundation. Expansion abroad — so vital to our economy—places renewed emphasis on the technique of adapting ourselves to fit varied environments.



Built in Argentina, 1936—"Success abroad is no simple matter

AFTER years of restriction imposed by war, American industry is again expanding its installations abroad. In doing so it is bringing to bear both old and new resources in planning, organization, engineering, selling, and related fields. Specialists from all combine efforts to make each new branch or factory successful and to improve long-established branches now being modernized.

All this is too familiar to call for comment here. There is need, however, for consideration of another factor which, for lack of a better name, we may call human engineering. Its function is to support technologic specialties by providing a background of contacts and understanding which add up to good human relations. Without these any foreign plant is headed for trouble. With them, the efforts of experts bear fruit in a going concern that fits local requirements and temper. Such a concern also is on the way to success, under conditions which may be far different from those in the United States.

IMPORTANCE OF SUCCESS ABROAD

The importance of winning such success is greater than it ever has been before. There was a time when the significance of branch plants abroad was limited and primarily economic. If they met with smooth sailing their owners prospered; if they got into difficulties few except their owners and those associated with them suffered. In neither case was our nation gravely affected, nor was the rest of the world.

This simple situation vanished when the United States became banker and creditor to half the world, as well as its mainstay in the struggle to keep part of the planet safe for human dignity and open to private enterprise. Under these conditions, every extra-American plant that fails weakens our own nation as well as the one in which it is located. On the other hand, every such plant that succeeds increases the prestige of the United States, strengthens an ally, and adds to the number of our friends. Such progress is the best possible preventive of Communism, which promises the moon as well as red stars yet consistently fails to provide such mundane things as shoes, pocket knives, and plows.

OBSTACLES AND MISCONCEPTIONS

Success abroad, however, is no simple matter of building plants where they are needed, surrounding them with an aura of good will, and then going to work. Many nations that are eager for American dollars and products still look askance at our corporations, our businessmen, and our industrial methods. If such nations are open to wise investment — some are not — business must accept their lack of cordiality, analyze it, and do all that can be done to overcome it. These steps are no less essential than sales forecasts, architectural planning, or selection of machinery.

Analysis involves a search for causes, and these sometimes are surprising. It is something of a shock, for example, to find that the hostility which often greets us abroad may be based on the conduct of early businessmen — mostly traders — whose goal was quick and enormous profits without thought for the long-range welfare of peoples with whom they dealt. Such traders vanished with sailing ships; in this country they survive only in literature. Abroad, however, their tradition lives on.

Another source of hostility is tourists —the kind who take their passports but leave courtesy and even decency at home. Envy plays a part, too; the man or nation with very little is bound to wonder how it comes that a neighbor seems to possess too much. Excessive nationalism is another factor, along with fear of competition and the tradition that business expansion from the United States is only a disguised form of conquest. Finally, we must remember that every cause of fear or hostility is now being magnified and exploited by anti-American propagandists.

SELECTING AND TRAINING MEN

Suspicion and hostility, therefore, are facts of business life abroad. What steps can American industry take to reduce and overcome them?

The first step is careful selection of

men who will go from the United States to work in other nations. Human nature seems to be universal, but human customs and patterns of thinking differ endlessly. It seems axiomatic that in choosing those who will do its work abroad, business should select men who can adapt themselves to unfamiliar conditions and work happily with unfamiliar peoples. Such men are by no means rare. If they possess the other technical and personal qualifications for industrial work abroad they should be put where they are needed.

This, of course, runs counter to the widely accepted dictum that no native American should be sent to another nation. The native is *American,* this argument runs; so American that he cannot possibly understand foreign minds or secure foreign cooperation. Actually, most corporations that send men abroad do send native Americans. Some, it must be admitted, have failed; in the main these failures were people who could not adapt themselves to other ways of thinking. But the American who is reasonably *sympatico* and who understands both his job and his product, can secure a respectful reception followed by cooperation. Of course, if you have a man who is native to the country in which you intend to operate, *and who is otherwise qualified,* be sure to send him. But if you don't have this paragon at hand, send a competent American, even though he has traveled no farther than his state capital.

Having selected a man, the next step is to train him. Unfortunately, there is no way in which industries in the United States can set up training courses which duplicate conditions and problems to be encountered elsewhere. The best substitute, perhaps, is to plan reading programs and arrange conferences with men of long and successful experience in the foreign field. If there is time, and if the person selected is young enough to need it, there may also be training in the exercise of authority and acceptance of responsibility. The standard procedure here is to put young men in full charge of limited jobs, under conditions which encourage them to recognize and analyze their successes and their failures. Self-analysis and the personal humility which it induces are frequently in order abroad.

None of this, of course, implies that the person who is sent to a foreign field must be either a philosopher or a superman. He is simply a person qualified to do a similar job at home but with a temperament which fits him to serve in other and perhaps very different surroundings. If he receives special attention, it is because he faces a task for which standard preparation is likely to be inadequate, and because world conditions force him into the role of unofficial ambassador. Neither his employer nor that nation can afford to have him make mistakes that can be forestalled by careful selection and training.

BEGINNING OPERATIONS

Given the man, armed with knowledge of his job and trained to overcome its obstacles, what follows?

The simplest way to answer this question is to trace the steps of a person who is sent abroad to establish a new factory and put it into operation. He finds the field partly prepared, since his company has made the studies which show that a factory is needed, establish its scope and size, and determine its general location. Its top executives also have been selected, though they are not yet on the ground. Until they are needed, the company gives its representative authority, with freedom of action and decision on all matters except top-level policy. This frees him from wasteful consultations and delays, and at the same time puts him in position to command the attention and respect of people with whom he deals.

At the outset, those dealings will have two prime objectives: *confidence* and *cooperation.* Neither will come as a matter of course, as the name of the company might bring them in the United States. Instead, confidence must be built up step by step, overcoming the barriers of misunderstanding, suspicion and opposition which we have already discussed. When confidence is won, cooperation will follow. The skill with which both are achieved is a measure of our man's ability to handle assignments abroad.

Meanwhile, things must be set in motion on a material plane. This means that the representative will rent an office and install a secretary who is equal to the task of helping a foreigner while he becomes acclimatized. From this office the representative makes his contacts with bankers, lawyers, insurance and real estate brokers, architects, contractors, equipment suppliers, officials, and various others. In time the load will become so heavy that a clerk or two must be added for filing and paper work. When construction of the plant begins, a part-time draftsman also will join the office staff.

Among the people whom our representative contacts, a few will have outstanding importance. First, of course, come the bankers, who act both as advisers and sponsors of the undertaking. They establish its credit; with the firm's local representative they provide information on people, corporations, and matters that range from prestige values of this or that location to prevailing wage rates.

Next in order comes the real estate broker. He, too, is familiar with local conditions, and his services are essential in finding a site that will meet future as well as present requirements.

The architect does a great deal more than merely design a plant. Taking the general outline developed by preliminary studies, he blueprints and supervises construction of a building that fits local conditions, methods, materials, and building requirements. It encourages efficiency and allows for expansion; if wisely planned it also is sufficiently attractive to become a source of local pride and a good advertisement. An architect who knows the ropes can capitalize on all these factors in his contacts with local officialdom as well as civic and business leaders.

Good representation by a legal firm is another essential. Such a firm will interpret local regulations on zoning, fire protection, working hours and conditions, and so on. At the same time, an experienced insurance broker will provide adequate but not excessive protection both during and after construction.

Much, finally, depends on suppliers of equipment. Americans have a natural tendency to prefer American machinery, and this must be overcome. The best rule is to buy local equipment; if it is lacking, then buy importations that enjoy wide local acceptance. To do otherwise is to pile up headaches in

servicing and replacement because of variations in sizes, threads, pressures, and so on, and because there will be no local stocks of essential parts.

DEVELOPING AN ORGANIZATION

Development of the work force begins when the plant approaches completion and equipment begins to arrive. At this stage handymen must be hired to remove crates, keep floors clean, and assist with installation. These handymen are carefully selected in order that they may form the core of the future organization. People who sweep floors and place machines today should have the human qualifications to become tomorrow's operators, maintenance men and supervisors. This applies the well-known fact that employees who help build a plant and start its machines have a feeling of responsibility and a pride of accomplishment that will pay off in loyal service.

TWO MISCONCEPTIONS SCOTCHED

In training workers the representative abroad must overcome two misconceptions which can have disastrous consequences. One says that it "takes three — or two, or four — foreigners to equal one American worker." The other maintains that methods which have made our workers the most productive in the world "simply won't go" in any other nation.

There are two ways to answer these assertions. One is to remind pessimists that virtually the whole working force of the United States was "foreign" a few years or generations ago. Allied to this is the fact that our production methods did not work at home until recently; in fact, they did not even exist. They are part of our technologic progress, and if the record means anything it tells us that they must be learned by everyone accustomed to older ways.

USING TIME AND MOTION STUDY AND INCENTIVES

These answers are logically sound, but examples from experience may be more convincing. In one of my own company's foreign plants, for instance, girls were folding pads from piles of cut gauze at the rate of about 900 per day, though production in the United States was about 2,700. Here was perfect "proof" of the three to one ratio—till we found that effective supervision was lacking, that the work area layout violated rules of motion and fatigue, and that pay was at a flat rate per day. The girls therefore were taught the essentials of motion and time study, a new layout was prepared, and an incentive rate was set on the same basis and with the same allowances used in the United States. Within three weeks production had risen to 120 per cent of the base rate, or 2,700 per day, and take-home earnings were up 25 per cent. The girls also knew what they were doing and why, and realized that they were expending less physical effort than they had used before.

At another time, our company was modernizing a plant in a nation famed for inefficiency and dislike of modern methods of achieving high productivity. Time was taken to teach executives, supervisors and employers — none of whom had ever worked with incentives — how these could be applied to their operation. It turned out that construction and deliveries of equipment lagged, so that the incentive plan could not get under way on schedule. The bitterest complaints came, not from the American engineer who laid out the plan, but from the local staff, who wanted it put into operation!

These are two examples; they might be multiplied from plants in widely differing countries. They lead us to three conclusions, which are supported by all that is really known about the inherent traits and abilities of nationalities and races.

First, there are few racial differences in human ability. Specifically, men and women of all nations and colors seem to be essentially equal in their capacity to master various types of work.

Second, differences that seem to be inherent really are the results of custom, training, social or economic incentives, and other controllable factors.

Third, when foreign workers are trained in modern production methods they can give efficient service. Moreover, when the advantages of these methods are made clear, and when results bear out the promise of benefits, both foreign workers and supervisors accept new procedures and apply them with wholehearted enthusiasm.

In all his activities, the American representative who is *sympatico* will secure cooperation denied the man who is not. In contacts with local businessmen, the American is *sympatico* if he shows respect for their customs, acts with courtesy, and places appropriate confidence in the people with whom he deals.

HOW BEING *SYMPATICO* HELPS

In the plant, the quality of being *sympatico* involves dignity, fairness, and a very human capacity to give and receive cooperation when problems demand solution. It also means the ability to put one's self in the other person's place, to think as he thinks, and to reach decisions which will compliment him and provide him with an incentive to help.

An example may show how this can be done. In one plant, there were serious complaints of inequality and injustice in pay from employees in jobs such as maintenance and material handling. These complaints were heard in detail and then were discussed in training classes. Discussion showed why piece rates could not be applied, called for suggested remedies, and led to consideration of the principles of job evaluation. When it came time for the instructor, who was an American, to decide upon a final solution, everyone had had his say and was ready to agree on a method and rate of pay that was fair and adequate. The result was confidence in the fairness of management and the company behind it, as well as a feeling of worker responsibility and pride in the job which guaranteed cooperation.

SUCCESS; PRESENT AND FUTURE

Here we come back to a statement made in our second paragraph; that technologic specialties must be supported by something that might well be termed human engineering. In less formal terms, the matter boils down to this: *Business abroad consists of people just as it does at home.* Differences in conditions, methods and attitudes are important, yet they rest upon this fundamental substratum of human reality. A company whose representative deals wisely and realistically with the human factor will meet the obstacles to operation abroad. In doing so this company will profit. It also will strengthen other nations and will protect the future of private enterprise.

A Management Concept of Materials Handling

By W. J. DERNBERGER
A.M.O. Division, Ford Motor Company

Essential principles to guide the evaluation of Materials Handling proposals. Presenting a constructive "common-denominator" for use in determining real savings.

IF you are interested only in knowing whether "efficient material handling reaps profits," or not,—then I need go no further. There are thousands of engineers and management executives who can re-assure you on that point.

Actually, management is not very interested in being further convinced of that fact; it is vitally interested in the methods of obtaining the efficient handling which will add to profits. Case histories have illustrated many methods and approaches,—but for some reason you could not quite apply, or possibly, could not afford those particular and specific applications. There seemed to be something lacking and not fully explained which would act as a common-denominator for use in studying your particular operation.

The writer has spent almost twenty-five years in material handling, material control, and material handling engineering. Over fifteen years of that experience was in supervising the material handling operation, which included the responsibility for two basic issues of cost,—we had to get the job done, as well as to incorporate new methods, new techniques and new equipment. From that experience, we will try to describe that common-denominator which we have found to be essential, and have found to be a sound and impartial evaluation of lower-cost handling ideas.

TWO BASIC QUESTIONS

We try to resolve the multitude of questions into two major questions. The first is,

"How efficient does the application of handling-labor and handling-equipment have to be before we start to *'reap profits'*; and, how do we determine that degree of efficiency?"

The second is,

"Where do the profits show-up; what are they; are they direct handling labor savings, general expense savings, — or what?"

These are two very broad questions and could be the subject of a complete, four-year, college text. However, I will try and draw from my experience and "highlight" these issues of efficiency and cost which are a part-and-parcel of every case history. You can trace them later in other case histories, and I think you will then question some of them as to the extent of resulting net savings or added profits.

THE "EFFICIENCY" FACTOR

First, we will take the word 'efficiency,' which is one of the most abused words ever used in conjunction with material handling values. I like the word 'effectiveness' better, because it indicates effective utilization rather than efficient application. Efficiency, in my language, is a mathematical measurement made against the mathematical potential capacity of man, machine, or, a combination of both. There have been, and are, scattered material handling jobs on piece work. If you will talk to the Superintendent of such operations, you will begin to realize how little we know about mathematical potentials in material handling.

At one time, I supervised the loading of automotive stampings under a piecework arrangement. We shipped about 90 carloads per day, and had continuing volume in our favor. We paid on a car-load basis, and while we had very little trouble establishing standards of time and material required,—we merely scratched the surface for three years in determining the basic, mathematical, man and machine potentials. The reason such a knowledge of potentials is necessary in cases of that type, is to know whether we can afford different shipping dock and facility layouts for more efficient carloading. We never did establish any real factor of efficiency, and yet our performance in establishing standards and controlling our cost to those standards did "reap profits."

"Efficiency" in material handling today, can only be measured against the wasted-effort or idle-time elements of present or former operations.

Today's job may reveal a much greater efficiency than yesterday's job; but on the basis of being measured against a mathematical potential, today's job may still be very inefficient. In order to point-up this particular issue, we will establish a comparison between two methods;—the one a proposed method, the other the present method.

EVALUATING TWO METHODS

The proposed method is analyzed and portrays the possibility of lower cost operations. Here we will interject a line of reasoning about *inherent efficiency* and *inherent inefficiency*.

"*Inherent efficiency*, is efficiency which can not be denied to a material handling method because of the fact that material handling supervision can fully utilize man-power, equipment and facilities regardless of other departments' demands; regardless of production schedule

changes; regardless of inventory control changes; regardless of purchasing delivery schedules; in fact, regardless of any "outside influence."

"*Inherent inefficiency* is the reverse; it is inefficiency which is caused by the changing demands of other departments; the changes in production or delivery schedules; the changes in shipment-arriving scheduling; in fact, the inefficiency caused by the non-consistency of service demands by any 'outside' influence or control."

Whether you want to believe it, or not, you cannot forecast, nor, and here is the "meat of our subject,—you cannot expect to obtain the same degree of efficiency under both the foregoing conditions. In the word 'obtain' we include the area of greater profits. These flat statements, without equivocation, are made because experience has proven them.

The substance of this discussion of efficiency in the two different methods, can be wound-up and summarized in this manner,—

"When two different methods of material handling are under consideration, and are supported by analyses of cost,—it is good judgment to review them as follows:

The method showing the lower estimated cost is undoubtedly the proposed method. This proposal usually infers almost perfect mathematical efficiency; yet it actually lies in the area of inherent inefficiency. The other method, the present method, has been costed inclusive of all existing inefficiencies. Again we repeat,—you can not forecast nor expect to obtain the "reaping of profits" when the efficiency factor is costed 100% in existing method analysis,—and almost absolutely ignored in the proposal. If you are sincerely interested in promoting lower-cost material handling, you must be realistic in your evaluation of investment potentials, especially in regard to the promiscuous use of efficiency terminology and efficiency interpretations.

NET PROFITS

So much for efficiency! Now for *profits!* For some reason, we material-handling enthusiasts do not consider the Boss's profits the same as we do the cash in our own pockets. When we want more cash in our own pockets, we budget our personal expenditures. We can not overlook any item of expense, or we will not have more money in our pockets. But, with the Boss's money we are prone to look at only part of his expenses; notably the expense of handling labor. As a result, we inform him of his potential savings based on a very inconclusive summary of his expenses. The Boss, too, sometimes ends-up with less money in his "profits-pocket."

We are going to talk about more profits in the sense of more money in the Boss's pocket. First, we must consider the expense of labor. This expense is one of the most 'expensive' expenses in his industry even though there is very little relative "cost-of-ownership" when the employee is not working. A good many people firmly believe the reason for this extreme of 'expensiveness' lies in a hand-handler's low tonnage capacity as compared to the high tonnage capacity of a mechanized handling device. This may be true in a minority of industrial handling operations, but it is not my understanding of the basic reason for the extreme expensiveness of hand-handling labor. Here is my understanding of the fundamental costs of material handling.

"You can not gear the cost and expense of handling labor to the handling job."

(There is no such thing as a 20¢ per hour employee for a job that requires 1/10th as much physical effort as the job rated at $2.00 per hour.)

"You can gear the cost and expense of mechanical aids to the job requirement."

With this line-of-reasoning, we can see where the extent of additional profits obtained through mechanization, are almost in direct relation to the productivity of the hand-handlers who are eliminated. In other words, if handlers are eliminated who are only productive to the extent of 20¢ per hour, you will "reap profits". While if you eliminate handlers who are productive to the extent of $2.00 per hour, there is a question of whether there are any additional profits.

INDIRECT EXPENSES AND SAVINGS

From my personal experiences, I view the area of other indirect expenses which, of course, can result in indirect savings, as being the largest area for "reaping profits". There are very few who agree with me, perhaps I am wrong. At least, I can give you my reasoning. The positive factors of gas, oil, electricity, maintenance, taxes, insurance, etc., are well known and can be evaluated. The intangible but very costly items of employee fatigue, damage to material, hazardous conditions, and retarded production,—all indicate extensive costs and potential profits which we have not evaluated. Somewhere, I read the statement, "Profits in modern industry are simply a knowledge of costs, and the technique of controlling those costs." If this is true, then we certainly can have an expectancy of greater profits if we provide a way of obtaining and controlling, less employee fatigue, more employee safety, less damaged material, and more production from existing facilities,—even though we can not establish the exact amount of increased profits.

I would like to summarize with two flat sentences which, of course, are highly controversial,—but again, which my experience points-up as being absolutely true.

1. We do not have industrial cost records which will reveal the complete 'investment and return' elements of handling mechanization.
2. We do not have industrial efficiency records of handling labor, or of handling machines, which will support our contention of mechanized efficiency.

ESTABLISHING THE COMMON-DENOMINATOR

These two statements, in conjunction with the previous discussion of efficiency and profits, arrange the common-denominator for all determinations of handling-savings, in the following manner,—

Step No. 1. Eliminate if possible.

Step No. 2. Re-arrange work-areas,

flow of material, hand-tooling, schedules and supervisory areas,—to the advantage of a greater efficiency with existing facilities.

Step No. 3. Estimate costs of mechanization and resulting savings over Step No. 2,—rather than over present costs.

Step No. 4. Continuously attempt to evaluate,—and always indicate the direct betterment of fatigue, damage, safety and production volume.

Again, in my personal experience, I have found plenty to keep me busy, and plenty of "efficient handling reaps profits," in Step No. 2,—the re-arrangement of present facilities. The further progress of mechanization must, of necessity, be evaluated by including positive savings in, or due to, less employee fatigue, more safety to employee, less damaged material, and greater production volume from the existing production equipment.

ANALYZING RELATED ELEMENTS

There is one case history which I think represents the essence of this article. When first joining Ford, some three years ago, I was told of a palletization idea which saved Ford $75,000.00 per year. The idea was worked-up around palletizing car springs to branch assembly plants. A review of the savings forecast revealed the entire savings to be in handling labor. Briefly, this is what I found. Full time handlers were placing spring assemblies on a monorail conveyor. The conveyor ran up a shipping dock and car-loading employees removed one spring from the conveyor, walked into the car a country mile, and placed in position. The springs were cross-car dunnaged after each row.

Under the new plan, a pallet was placed at the final inspection points, and the inspector placed the spring assembly on the pallet. When the pallet was loaded, handlers placed dunnage and steel-taped the pallet load. A transporter picked-up the load and placed it into the car. The center or doorway area of the car was the only point of car dunnaging. This operation saved $75,000.00 per year of handling and dunnaging labor.

Now, let's process the job in another way. We will place a dolly or trailer at the final inspection point, the inspector will place the spring assembly on the trailer. When the trailer is loaded it will be hauled to the shipping dock. The car-loaders will move the trailer-load into a permanent-dunnage car and transfer loose hinges to the stack on the car-floor. Standard, car-complement, bulkheading dunnage will be quickly placed to hold each row. This method which does not reduce the labor-cost so greatly,—but which does practically eliminate car-dunnaging costs; which does eliminate the ownership, depreciation and repair costs of the pallets; which does eliminate the accumulation, bundling, and return costs of the empty pallets; which does eliminate the freight cost of pallet transportation,—and which does produce a $2.00 per hour productivity of the handlers involved,—all of this adds up to a net savings of $125,000.00 per year.

Here is the idea I am trying to get across. The idea of palletization was wrong in two respects:

1. There was no "Step #2" analysis.
2. There was no costing of the "Boss's" expenses of palletization.

This mechanized material handling operation was much more efficient than the former method, but there was no "reaping of profits" as a result, nor was there any more money came to rest in the Boss's pocket.

In fact, overall cost increases were running over the $75,000.00 labor-savings figure. It is becoming apparent that good handling engineering is comparatively abundant, while good material handling supervision is not. In other words, we are amply supplied with engineers, who can study, survey and recommend modern and efficient techniques, while we have a critical lack of supervisory authority to utilize the techniques to the advantage of lower product costs.

John W. Nickerson Wins Industrial Incentive Award

JOHN W. NICKERSON received the first "Industrial Incentive Award" at the dinner session of the Fifth Annual Time Study and Methods Conference, April 20, at the Hotel Statler, New York City.

The award, a specially designed key, was presented by Mr. A. Strong of the firm of Rath and Strong, Boston, Mass. The Citation accompanying the award is quoted below.

JOHN W. NICKERSON — Beginning with graduation from Massachusetts Institute of Technology and initial training under Henry L. Gantt, you have worked tirelessly to extend the application of sound incentives in industry.

YOU have contributed freely in professional writing and speaking for many of our management and engineering societies.

ALWAYS an industrial engineer, you have served on governmental boards called up to settle labor disputes through proper work assignments. In war production, you took charge of the division organized to further the installation of incentives.

THEN, and since, you have urged the abolition of the Congressional Act that prohibited the use of scientific management tools in governmental works. In August, 1949, this was deleted after thirty-three years of continuous re-enactment.

IN recognition of your part in helping to remove this restrictive measure directed against incentives, the Society for Advancement of Management presents to you its first Industrial Incentive Award.

Commercial Research
A Key to Management Planning

By F. JURASCHEK

Manager, Commercial Research Division
Carnegie-Illinois Steel Corporation

Do you find a Market to fit your product or make a product to fit the Market? A refresher "course" in some fundamentals of Market Research.

UNDERLYING all management problems in any manufacturing organization, we find one basic question, so fundamental in all its implications that an adequate answer must be secured if the whole organization is to function effectively. The question is, "How much, of what, can we sell, where, to whom and at what price, in order to secure a continuing profit on our investment?" Problems of organization, size and scope, of finance, of production, of securing raw materials, setting up plant equipment, employing workers and distributing the output, all hinge on the basic factor of Sales Planning, and Sales Planning depends in turn on Market Research (or as most of us who are engaged in the practice prefer to call it, "Commercial Research").

A FIRST PRINCIPLE

What is Commercial Research, what areas of analysis does it cover beyond the scope of "Market Research," and how do its conclusions affect the decisions of management? It is the purpose of this discussion to cover briefly a few salient points of the practice of a large industrial manufacturer.

To determine with any degree of reasonableness *what* you can sell, *where* you can sell it, *to whom* you can sell it and at *what price* to insure a profit requires initially a sound knowledge of the market. This implies the assembly and organization of knowledge of all ascertainable facts about the consumer requirements for each company product, by industry, by territory and by customer; and it further involves a study of competitive prices, costs, profit margins and the company's competitive position as to quality, delivery and service. But most important of all, it requires an intimate understanding of the customers' actual desires and intentions —which, by analysis, may well lead to *new* product development, *new* manufacturing techniques, and *new* investment in plant facilities, in addition to the usual determination of immediate market prospects.

WHAT DOES THE BUYER BUY?

There is a basic economic tenet which all teachers try to instil into the minds of their students in economic classes. Let me brief it as follows:

PRODUCTION does not completely fill its obligation until

1. Things are in the FORM desired
2. Things are in the PLACE desired
3. Things are available at the TIME desired, and
4. In the POSSESSION of those who desire them.

Economists sometimes speak of this as the four-fold utility of a product, and say, "Yes, production creates value, but that value is not transformed into profit until the thing produced has undergone this four-fold metamorphosis of form, of place, of time and of ownership."

As you look at these changes which production effects in materials, you notice that the first three are functions of *making* the product, while the last is a function of *selling* the product. The value added by production is not translated into profit until the thing made has been sold for more than it cost. How much you can sell of what you produce, to whom, at what place and when and at what profit becomes a problem to be determined *before* you produce, and involves the quantitative measurement of the markets in which sales can be made, as well as qualitative measurements of the profits which can be made.

Business planning involves for any product or producing organization, the study of the best economic location for facilities to produce, the best economic *types* of facilities, the means of distributing the product, and the most advantageous *sales policies*: all keyed in to the best return to be expected on the capital which is now or which later must be additionally invested.

But, since we know that a product as made cannot be turned into dollars return on the invested capital until it is bought and paid for by a buyer, and delivered to him at the time and place, and in the form he desires, the first questions we have to ask ourselves are concerned with what the buyer desires as to form of the product and time and place of delivery. Here we run right into the inescapable fact that the two phases of commercial research are inseparable; market analysis and product analysis.

You can analyze the Product, then find the Market to fit it; or you can analyze the Market, then find the Product to fit it. In the first instance let us say you have a hospital-type X-ray machine. By product analysis you determine its use-advantages and limitations; then you select the hospitals where your machine will fill a need. In the second case you would analyze the needs of the hospitals for X-ray machines, especially

considering the limitations or disadvantages of present equipment; then, if the market appeared promising, design and build an X-ray machine that will fit the needs better than any present equipment will.

Technological progress in the past half century has made amazing strides in the matter of *making* goods, and undoubtedly further reductions in manufacturing costs will be effected as technology continues to progress. But similar progress has not been made in costs of distribution, once the product is made. Here is an immense field of endeavor for the business man of today and tomorrow, entailing problems of much clearer comprehension of markets and how to get at them. For it is becoming more widely realized that to realize the greatest return on your investment you must

a. determine where the product is needed, and
b. make the product meet the need.

MAJOR POINTS OF ATTACK

Effective commercial research in the matter of analyzing and assisting to develop profitable markets for a particular product may be summarized in these points:

1. Who uses or has need for the product?
2. Why does he use it?
3. What conditions govern its use?
4. What are the trends in the demand for these uses?
5. What are competitors offering for these uses?
6. How well does our product serve these uses?
7. What motives influence the buying decisions of customers?

I think I can best explain the function of Commercial Research by saying that its primary purpose is "to look closely into the opportunities for selling at a profit." There are six angles of approach to the problem, each of which has equal bearing on the management problems we endeavor to solve.

ANGLES OF APPROACH

1. The potential customer comes first. Who is he? Where is he located? What does he do that gives rise to a need for the thing which is to be sold? In this phase of the problem we have to define the market quantitatively; that is, measure the *extent* of the opportunity to sell. But we also seek to develop a complete explanation of the need for the product or for some other product which renders similar service, and this yields a qualitative definition, or the measure of the *value* of the market.

2. Second comes that which is to be sold. This is what is known as "product analysis." Briefly, it is concerned with the study of the selling points of that which is to be sold in relation to the needs of the market. Here we begin to see many differences between what the average sales manager calls "selling points" and the newer conception of product advantages in relation to buyer needs. For a product may have any number of real advantages and be quite a superior type of article indeed, but if it does not meet a definite market need, not all the sales effort in the world may be sufficient to bring about a sale. Few indeed are the industrial products which have been sold profitably until market needs were first established. Steel is a good example. It was known for centuries and used only for sword blades, body armor and jewelry, until the Industrial Revolution, fostered by the inventions of the multiple weaving loom and the steam engine, developed markets for steel in production machinery, transportation and construction.

DIRECT AND INDIRECT COMPETITION

3. Next comes the study of competition, as it influences the opportunity to sell. In this phase we meet two factors:

MARKETS
What the FACTS are
ASSEMBLY AND ORGANIZATION OF ALL ASCERTAINABLE INFORMATION AS TO COMPANY AND COMPETITIVE PRODUCTS.
1 REGARDING EXISTING AND PROSPECTIVE
a. MARKET REQUIREMENTS
b. PRICES
c. PROFIT MARGINS
d. QUALITY
e. DELIVERY
f. SERVICES TO CUSTOMER
g. CUSTOMER DESIRES & INTENTIONS
2 CLASSIFIED BY
a PRODUCT
b. TERRITORY
c CUSTOMER INDUSTRY
d. INDIVIDUAL CUSTOMER
What the FACTS mean
INTERPRETATION OF ALL AVAILABLE INFORMATION IN TERMS OF
MARKET PROSPECTS
a. SHORT RANGES (UNDER 1 YEAR)
b. INTERMEDIATE (1 TO 3 YEARS)
c. LONG RANGES (3 TO 20 YEARS)
AND THEIR BEARING ON
a. SALES POLICIES & METHODS
b. PRODUCT LINE
c. INVENTORY NEEDS
d. PRODUCTION SCHEDULES
e. FACILITY NEEDS
f. RESEARCH BOTH PRODUCT AND PROCESS
g. INVESTMENT REQUIREMENTS
h. RETURN ON INVESTMENT

direct competition, as provided by the makers and sellers of things of the same general nature as that which we desire to sell, and indirect competition, as provided by the makers and sellers of other things which offer a similar service. By way of illustration we may say that the direct competition in the case of an electric shaver is all the other electric shavers being produced and sold; while the indirect competition would lie in the steel-bladed safety razors, the old-fashioned "straight" razor, and the barber shops. In the case of a new breakfast cereal, the direct competition would be other breakfast cereals, while the indirect competition would be such things as poached eggs on toast, ham and eggs, or wheat cakes and syrup. The study of competition is a major phase of commercial research, both as to products or services, and methods of marketing. It is an indispensable factor in the problem of "looking closely into the opportunities of selling at a profit."

THE DISTRIBUTION PROBLEM

4. The angle of distribution is primarily a matter of management concern, in that it involves analyses of the ways and means by which the products can be most profitably marketed. A great many industrial products are sold direct, but the jobber-distributor is a factor to be reckoned with, nevertheless. Manifestly there are economic reasons why there should be middlemen in the industrial market picture. Some of these reasons lie in the size of the unit order, some lie in the need of having stocks on hand for immediate delivery and use under conditions where it is not profitable for the producer or the user to assume the burden of inventories, some lie in the credit conditions under which the sale is made, and some lie in the rather intangible values compounded of the friendship and past relationships existing between the middleman and the buyers. Whatever the facts may be in any particular case, some factors will tip the scales in favor of direct sales, and others in favor of sales through a middleman. Which may provide the greatest ultimate profit is a proper field for commercial research.

As a matter of fact, management policies being decided, advertising and sales promotion are potent factors in beginning, *maintaining* and *developing* distribution, as supplementary and complementary to the personal efforts of the salesmen themselves.

SALES ANALYSIS — YARDSTICK AND HISTORIAN

5. Sales analysis is concerned not only with the measure of actual sales performance against market opportunities (or, as it is more generally called, "participation"), but is equally concerned with the study of customer relations. The only real value of history is to learn how to do things better tomorrow by analyzing our sins of omission and of commission yesterday. The study of what can be done in the way of developing opportunities to sell at a profit in the future rests squarely upon what has been done in the past.

ROLE OF THE ECONOMIST

6. The final factor in commercial research is the study of the influence of secular trends on the markets. By "secular trends" is meant those long-term influences which business and industrial activities of all kinds *outside* of our own industry have or will have on our future business. This is probably the largest single factor in the whole practice of commercial research, and today many large industrial firms have special men called "economists" who do nothing else. It has come to be recognized quite generally that all business is a matter of relativity. No man is completely the master of his own destiny. We are, all of us, parts of a single vast and extremely complicated machine wherein there is no such thing as an *independent* function. When a war destroys billions of dollars worth of production goods and facilities, there is an inescapable tendency towards inflation because the normal balance of goods and money is out of whack. But let the textile industry slump into the doldrums, and some people somewhere will stop buying refrigerators and automobiles, then manufacturers will stop buying machine tools and electric motors, and in two ways the markets for materials shrink. The opportunities to sell are being continually and continuously affected by the rise and fall of all markets throughout the world.

OBJECTIVES

In all the applications of these principles, commercial research attempts to formulate (most of the time simultaneously) a quantitative measure of the extent, and qualitative measure of the value of the opportunities to sell at a profit. I could summarize the work of any typical commercial research organization into a statement like this:

1. To show where and how and what products may be sold at a profit.
2. To show what production or distribution facilities are needed to make those products available when and where the customers require them.
3. To show how our sales organization is meeting its opportunities.

You have noticed, of course, all through this somewhat elementary outline that commercial research activities comprise a triple-play analysis of both products and markets; a searching analysis of what, "Has Been in the Past" and, "Is Today," plus an estimate of what, "Will Be Tomorrow." Someone has said, "The real function of a study of history is to learn how to avoid making mistakes in the future." Certainly what has happened is no sure guide to what will happen, but a study of the past can help us to recognize beforetime some of the pitfalls of the future. This is certainly true in the matter of the forward look required to know where we are going and what we should do tomorrow to get the best return on our investment in plant and distribution facilities and in organization.

Hence we can say, logically, that adequate knowledge, both of past and present market conditions and of future market trends, comprises the raw materials out of which the fundamental structure of Business Planning may be built.

Profits must always be ground out between the lower millstone of cost and the upper millstone of price. Every element of management that is concerned with planning tomorrow's activities to the end that an adequate profit may be made to flow from between these millstones and thus justify the investment of the capital risked in the business, realizes today that the economic key to that planning lies in utilizing the knowledge of markets.

Decentralized Forms Control

By ROBERT W. PEARSON

Organization and Methods Examiner, Office of the Chief of Administrative Services, U. S. Civil Service Commission

How the Civil Service Commission maintains control of forms and prevents duplication of forms even though the actual control function has been decentralized.

FORMS control has come of age and is now accepted as vital to a successful management program. The United States Government has not lagged behind in this work. On the contrary, many agencies of Government have long operated successful programs designed to keep to a minimum the number of forms in use to make their forms as efficient as it is possible to make them. Large savings to the taxpayer have resulted from these programs.

The United States Civil Service Commission is one of the many agencies of the Federal Government which have active programs to control the forms used in all of their operations. In some respects the Commission's forms problems are unique, since it is responsible for prescribing Government-wide personnel forms as well as its own operating forms.

The Commission's organization consists of a central office in Washington and 14 regional offices in as many cities. Each regional office is in reality a miniature Civil Service Commission, as it performs many of the same functions performed by the central office. Operations are therefore practically standard among all of these offices. This means that forms used for standard operations must be controlled on an organization-wide basis. In other words, it is not practical or economical to permit different offices to use different forms for the same function.

The whole matter of forms control is vital to the Commission. Its complex operations seem to demand more and more forms; printing costs have greatly increased in recent years; forms must be stocked, shipped, and handled. Therefore there must be controls to prevent unnecessary forms from coming into being and to effect economies in printing and handling of the necessary forms. The Commission's forms control makes it possible to prescribe forms to be used for Commission-wide operations, which in turn permits these forms to be printed in large quantities. This not only effects economies in printing costs, but also assures the use of the prescribed form for each function.

Much has been written about "forms control" in recent years. Therefore, this article will not deal with the more familiar aspects of a forms control program, such as forms analysis, functional classification, forms design, and numbering systems. It will instead describe how the Civil Service Commission, when faced with the necessity of reducing its forms control staff, solved the problem of maintaining adequate forms control on a decentralized basis.

DECENTRALIZING CONTROL

The Civil Service Commission for several years has been operating a "decentralized" forms control program with excellent results. The important thing about this program is that control of forms which are used on a Commission-wide basis is adequately maintained even though the point of clearance and approval of the majority of forms has been decentralized from the central staff level to the operating level.

Prior to the adoption of this program, the Commission had conducted a centralized program. In other words, all forms were cleared through channels up to the central forms staff, where the functional analysis, design or redesign, numbering, etc., was performed and the form approved for printing. This worked well enough when adequate staff was available to perform these functions, but it bogged down when the staff was severely reduced because of limited funds for this work. The result was that the limited forms staff had to confine itself mainly to routine work.

The situation was studied and a new and different forms control program resulted. Here is what was done:

1. A forms control handbook was prepared which covers all phases of forms work from procedural instructions for initiating and clearing forms, to stocking them after they are printed. (Each person having responsibilities under the program must be familiar with this handbook.)
2. Each operating division in the central office and each regional office was required to designate a person to spend part time as the "forms control employee" of the division or region. (This person is completely responsible for the program within the division or region.)
3. The forms control employees were trained in forms design, functional classification, forms analysis, and all other phases of forms work.
4. A new system of numbering forms was devised which indicates forms used on a Commission-wide basis, and those used

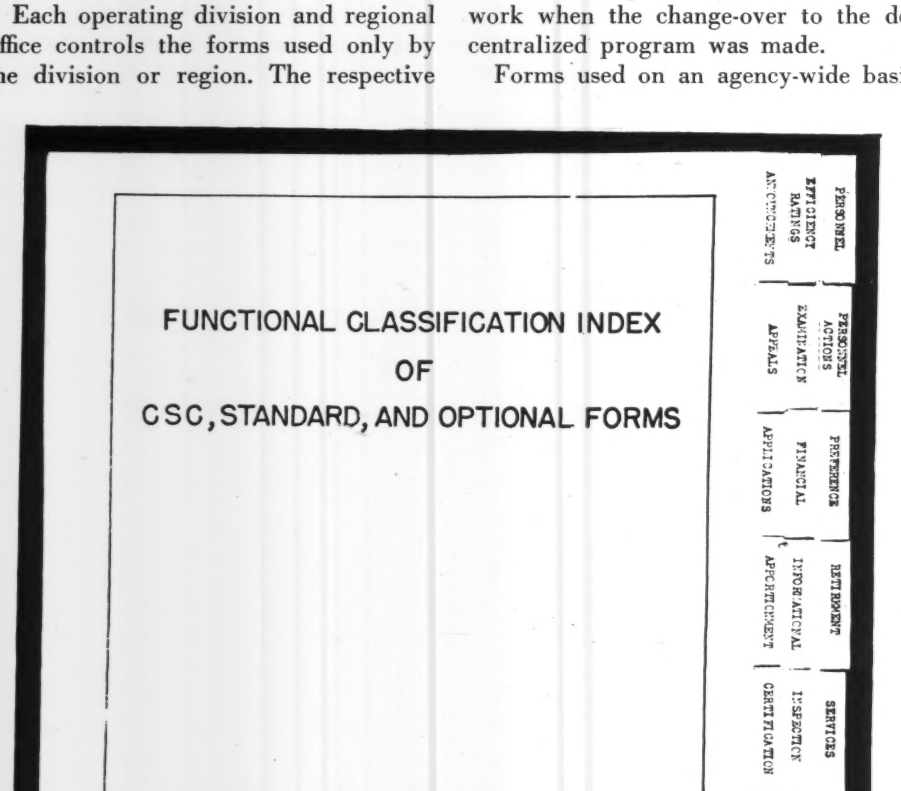
only within a division or regional office.

5. Provision was made for continuous review and study of forms at the operating level.
6. A functional classification index of forms used on a Commission-wide basis was developed and supplied to each forms control employee.
7. A small central staff was retained to clear and approve all Commission-wide forms, conduct special studies of personnel forms used throughout the Government, and provide training and leadership for the program.

CLEARANCE OF FORMS

Each operating division and regional office controls the forms used only by the division or region. The respective forms control employees are responsible for the functional analysis, design, and numbering of these forms. They do not clear through the central forms staff. This makes for speed in handling these forms and provides adequate control by personnel familiar with the operations and procedures of the division or region. These division and regional forms make up a large percentage of all of the Commission's forms. The central staff is thereby relieved of the job of analyzing, designing and approving them. While this represents a large percentage of all of the Commission's forms, each individual division or region has only a small number of forms. Therefore the forms control employees devote only part time to this work. It was not necessary to add a single position in any division or region to handle this forms work when the change-over to the decentralized program was made.

Forms used on an agency-wide basis are cleared by the central forms staff and this staff is responsible for design, clearance, and numbering of such forms. All contacts with the divisions and regions on matters pertaining to forms are made with the forms control employees. This provides a direct channel between the central staff and the divisions and regions. No form used on a Commission-wide basis is considered for clearance which does not have the approval of the appropriate forms control employee. This means that it is seldom necessary for the central staff to make extensive studies regarding a proposed new or revised form, since the forms control employee has taken care of all these matters in his review.



This Index controls all forms used on a Commission-wide basis.

PREVENTING DUPLICATION

Of course, the weakness in a program such as this could very well be the duplication of existing forms by new forms, since divisions or regions promulgating forms for their own use are not required to clear them with the central staff. In other words, if division A has a form which division B should use in lieu of one which it proposes to promulgate, what is to stop division B from issuing a new form, which would result in two forms serving the same purpose? It is well known that this can happen and probably does in many cases where adequate controls are not established. This problem has been solved in two ways:

(a) Forms which can be used by two or more divisions or regions are issued as CSC forms.

(b) A functional classification index of CSC forms is supplied to each forms control employee.

Each division or regional forms control employee must determine that no other division or region can use a form before it is issued as a division or regional form. (The forms control handbook contains instructions on how to make this determination.) If the form can be used by other divisions or regions, it is issued as a CSC form and cleared through the central forms staff. Hence CSC forms are developed by the operating division having jurisdiction over the operation for which the form

is needed. These forms, of course, are cleared by all interested divisions. The central forms staff assists in perfecting the form when necessary and satisfies itself that the form is essential and satisfactory. These forms are then printed in quantities sufficient to supply all users. They are stocked centrally and are issued on requisition to the using divisions and regions. All divisions and regions are required to use CSC forms when applicable. They are not permitted to substitute division or regional forms.

FUNCTIONAL CLASSIFICATION INDEX

All CSC forms are listed in the functional classification index of CSC forms. This index is simple, but very effective. Each form is classified by the function which it serves. This classification is brief but entirely descriptive of the function of the form. For example, a requisition form would be classified thus: "To request supplies and equipment from central stock".

There are some 20 breakdowns which represent the operations for which the Commission's forms are used. For example, "Examining" pertains to all forms used in the examining function; "Medical" includes all forms pertaining to the medical function; "Supplies and Equipment" refers to forms used in requisitioning, stocking, and issuing supplies and equipment. This requisition form mentioned above would be listed under "Supplies and Equipment."

This index is printed on loose-leaf pages, 8″x10½″. Each page contains the functional description of from 12 to 15 forms, depending upon the length of the descriptions. The sheets are inserted in loose-leaf binders with dividers and tabs for each breakdown. A copy of the index is furnished to each forms control employee and is kept current by the substitution of pages on which there have been changes (new forms added, classification changed because of revision of the form, or classification withdrawn because the form is obsolete). The central forms staff maintains the index and distributes the revised pages.

The functional classification of each form is punched on tabulating cards. These cards are automatically sorted and the pages printed on the tabulating machines.

Maintenance is simple. The punched cards are removed when forms are made obsolete and new cards inserted in their proper places for new or revised forms. Only pages on which there have been changes are rerun.

THE INDEX IN USE

As mentioned above, each division and regional forms control employee has a copy of the functional classification index. In reviewing a request for a new or revised form, the forms control employee first classifies the form by function. This classification is complete with the description of the function of the form and the breakdown under which it falls. The next step is to check under the corresponding breakdown in the index to see if there is an existing CSC form which serves the same function as the proposed form. If a form which serves the same or a similar function is located in the index, a copy of the form is compared with the proposed form and, if they are similar, the proposed form is rejected and the operating unit notified to use the CSC form for the purpose for which they intended using the new form.

It can be readily seen that the advantages of this index are many. Those familiar with forms work know that a numerical file will not serve this purpose. Where there are a large number of forms it is impossible (or at least very time-consuming) to attempt to locate forms functionally in a numerically arranged file. (There are 543 CSC forms.) Further, an ordinary functional file of copies of the forms will not serve this purpose since there are 30 divisions and regions which develop and issue forms. It would be an extravagant duplication to have each of these offices maintain such a file of CSC forms. By putting the classification in words on sheets in loose-leaf binders, the necessity for the maintenance of such files is eliminated.

The tabulating method of producing and maintaining this index is inexpensive and quick. There is no typing job, no mimeographing, etc. Continuous 5-

	STATUS
68	TO ACKNOWLEDGE INQUIRY AND INFORM THAT CASE IS RECEIVING CONSIDERATION
265	TO REQUEST FROM SERVICE RECORD DIVISION INFORMATION RE DCE WHO HAS FILED APPLICATION IN FIELD
3395	TO AUTHORIZE CLASSIFICATION OF POSTMASTER SUBJECT TO SATISFACTORY FINGERPRINT REPORT
3696	TO REQUEST CSC TO AUTHORIZE A CLASSIFIED STATUS UNDER EXECUTIVE ORDER 8744
3820	TO AUTHORIZE CLASSIFICATION OF SPECIFIED INDIVIDUAL
3820A	TO AUTHORIZE CLASSIFICATION OF INDIVIDUAL UNDER RAMSPECK ACT AND EO 8743
4929	TO NOTIFY AGENCY OF ACTION TAKEN ON REQUEST FOR CONVERSION UNDER CIVIL SERVICE REGULATIONS 3 106 AND 3 102
SF 48	TO REQUEST CLASSIFICATION UNDER RAMSPECK ACT AND SEC 1 OF EO 8743
SF 49	TO REQUEST CLASSIFICATION UNDER RAMSPECK ACT AND SEC 6 OF EO 8743
SF 53	TO REQUEST CLASSIFICATION UNDER SEC 1 OF EO 8833

A page from one of the sections of the Functional Classification Index.

part tabulating paper is used and the cards are run through the machine six times to produce 30 copies. This does not represent a large amount of work since an average of only 15 to 20 sheets are run at any one time.

The functional classification index is otherwise used the same way as the functional classification file in other forms control systems. It is used by the forms analysts to bring together groups of forms serving similar functions for study for possible consolidation and elimination, for checking possible duplication of forms, and for locating forms when the form numbers are not known.

Each division and region also maintains a functional file of the division and regional forms which they control. This file is the same as the CSC index, except that the functional descriptions are on 5x3″ cards, filed under the same breakdowns as those used in the CSC index. This file is used for the same purpose as the CSC index except that it is for division and regional forms.

OTHER FEATURES

The program provides for continuous studies of forms at the operating level. Supervisors and other operating personnel work with the forms control employees in constantly reviewing the forms which they use in their work. Procedures are reviewed as forms are studied. This has resulted in elimination of hundreds of forms which are found to be no longer necessary or which duplicated similar forms. Many similar forms were combined as the result of these studies. The effectiveness of this type of forms studies is demonstrated by the fact that during the first nine months the program was in operation 2,676 forms were declared obsolete, 162 forms were eliminated through consolidation with other forms, and 757 forms were improved in content or format. No central staff could possibly make such thorough studies of the forms of all divisions and regions as are obtained by this method.

Another development of this program in which progress is being made is the use of preprinted offset masters for printing locally those forms which require overprinting. Many of the CSC forms require overprinting of the regional office address or other information, or both. This required the printing and stocking of the forms in Washington and then shipping to the regional offices in 14 different cities in all parts of the country. The forms were then overprinted in the regional offices by mimeograph or multilith machines or hand-stamped. This, of course, resulted in double printing costs as well as shipping the forms from Washington.

Some of these forms are now being printed on offset masters and the masters stocked in the central office. The masters are requisitioned by the regions and the information which previously had been overprinted is typed on the master and the entire form run off at one time on the multilith machine. Control of the form is maintained, since the form is printed on the master and these are purchased and stocked only by the central office in Washington. This system eliminates excessive shipping costs since the paper is purchased locally, and it eliminates double printing costs. As mentioned, control over the contents and format of the form is retained.

TOWARDS MAXIMUM EFFECTIVENESS

The advantages of this system, as seen after more than two years' operation, are:

1. Decentralization of the control function has made it possible to do a thorough forms control job with a limited central staff. This staff is now able to devote time to special forms studies and clearance of CSC forms, as well as to the over-all direction of the program.
2. Continuous studies of forms at the operating level have produced results far beyond those obtainable by a central forms staff. Forms are kept current, improvements are made, and unnecessary forms are eliminated.
3. Centralized printing of forms used on a Commission-wide basis results in savings in printing costs.
4. The use of prescribed forms by all regional offices and divisions eliminates duplication and the resultant multitude of unnecessary forms. There is no duplication of forms used on a Commission-wide basis by regional or division forms, even though the control function has been decentralized.

The system has eliminated duplication and waste. It has provided control of forms on an agency-wide basis. This is essential to the success of any forms program.

MODERN INDUSTRY AWARD RULES

DESCRIPTION OF PROJECTS

The Award will be made to the Chapter of the Society for Advancement of Management, selected by the judges, for the most valuable Chapter project completed during the current year which either:

a - Adds new useful knowledge on scientific management, or advances the art and practice of management in the area served by the Chapter, or

b - Advances public understanding of the creative and constructive role of scientific management in modern society.

The award will be $1,000.00 to be used in the development and implementation of another project which will further the advancement of the science of management and its applications in the area served by that Chapter.

All entries must be in writing and filed with the National office of the Society on or before September 30, 1950.

The decision of the judges will be final.

The award will be presented by Modern Industry at the 1950 annual banquet of the Society.

(See pages 27 and 28 for other details)

The Nature of Stop Watch Time Study Errors

By IRWIN P. LAZARUS
Purdue University

Results of an experimental project* to obtain factual data about stop watch readings. Comparison is made between the continuous and the snap-back-methods.

A SERIES of experiments performed at the Purdue University Motion and Time Study Laboratory should settle the perennial argument concerning the superiority of either the snap-back or the continuous method of watch reading. Although it must be realized that there will be some error involved in any method of taking a stop watch time study and each person has his preferred technique which he considers to be the least erroneous, very little quantitative data has been gathered on this subject. Thus, because of the lack of information on the subject, a study was made with the objectives of:

1. Securing the size of the mean error inherent in both the snap-back and continuous methods of watch reading.
2. Determining the size of the standard deviation of the errors, thereby acquiring knowledge of the typical error.
3. Comparing the continuous with the snap-back method of watch reading.[1]

[1] It is realized that there are many methods superior to the stop watch for the recording of time values. An example of these is a motion picture film of the job which serves as a permanent record of the exact method used and the performance time required for a task (assuming projection speed equal to exposure speed). A determination of stop watch time study errors was necessary then primarily because so many companies still adhere to this inexpensive and easily applied technique.

THE STIMULUS GENERATOR

It is obvious that if one is to measure errors, then the equipment with which he is to perform his measurement must contain a minimum of internal errors. An apparatus was required, therefore, that contained negligible internal errors plus the ability to emit signals at precisely the same measurable time interval for each consecutive performance of the test. A satisfactory stimulus generator was built from a Signal Corps code trainer salvaged from war surplus (see Figure I).

This stimulus generator consisted of (1) a synchronous motor to drive a reel of tape (with the aid of a variable speed control system), (2) a photo-electric cell with a coupled light beam, and (3) a radio circuit for sound amplification. The apparatus operated on the principle that so long as the beam of light was intercepted by the moving tape nothing happened. If a hole were punched in the moving tape, however, the beam of light was allowed to pass through the opaque tape and strike the photo-electric cell which then caused an audible signal to be emitted.

By punching the holes in the tape a known distance apart and making use of the fact that the tape moved at a known constant velocity, the time interval between emitted signals was made unchanging in length. The test could then be presented many times with the assurance that the time intervals or elements would be the same each time. By punching the holes a great or a small distance apart, long or short element times could be simulated. A light was also introduced into the circuit so that a visual signal could be emitted as well as an audible one. The machine was calibrated in words per minute, a hold-over from the code training use to which it had previously been put. It was not necessary to change this dial since corresponding tape velocities in feet per minute could be determined by an overall time check and then the word per minute calibration used to secure that velocity. A triple signal warning was punched into the tape to sound or appear just before each reading signal was sounded.[2]

* Abstract of a thesis performed under the auspices of the Purdue University Motion and Time Study Laboratory.

TEST PROCEDURE

The test was presented to a total of fifty industrial engineers from five large companies located throughout Indiana and Illinois. The engineers were in small groups, in their own plants, and

[2] The apparatus used in the test (Signal Corps Keyer, Serial TG-34-A) has aroused some interest in many of the companies that have seen it because it may be put to use as an inexpensive tool for training time study men and for securing periodic checks of their accuracy. Some units are doubtlessly still available at war surplus outlets.

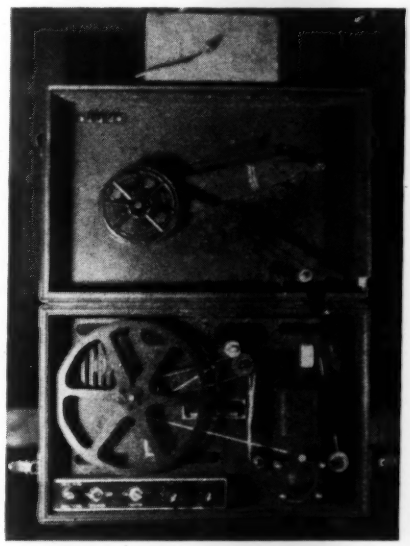


Figure I
The stimulus generator.

used their own timing equipment (see Figure 2).

The test consisted of passing the prepunched tape through the stimulus generator, causing the signals to be emitted which were timed by the engineers. A total of five thousand element timings were recorded, half audibly presented and half visually presented, ranging from four to thirty-nine hundredths of a minute in length. A series of twenty-five audible signals was first presented, followed by a series of twenty-five visual signals. The cycle was then repeated giving a total of one hundred readings to each test.

All engineers read their watches in the manner to which they were accustomed, either snap-back or continuous. All readings were recorded on prepared time study sheets which were given to the engineers in duplicate so that they might retain a copy of their timings. True element times were distributed to the engineers upon completion of the test.

In the study no attempt was made to apportion parts of the errors to any of the many possible causes. It seemed plausible to consider the error as the sum total of all the human deficiencies and any attempt to assign or identify a single cause would most probably require changing the person's physical and mental equipment.

CAUSES OF ERRORS

It must be recognized, however, that the errors are due to many causes, a few of which are:

"1. The timestudy man may be slow in snapping back the watch.
2. The observer may read the watch incorrectly.
3. The large hand may be allowed to continue after the reading has been observed but before the watch has been snapped back.
4. The watch may be read correctly but a different figure may be recorded.
5. Some of the miscellaneous element times may be omitted."[3]

[3] Carroll, Philip, *Timestudy Fundamentals for Foremen*, McGraw-Hill, 1944, New York, p. 51.

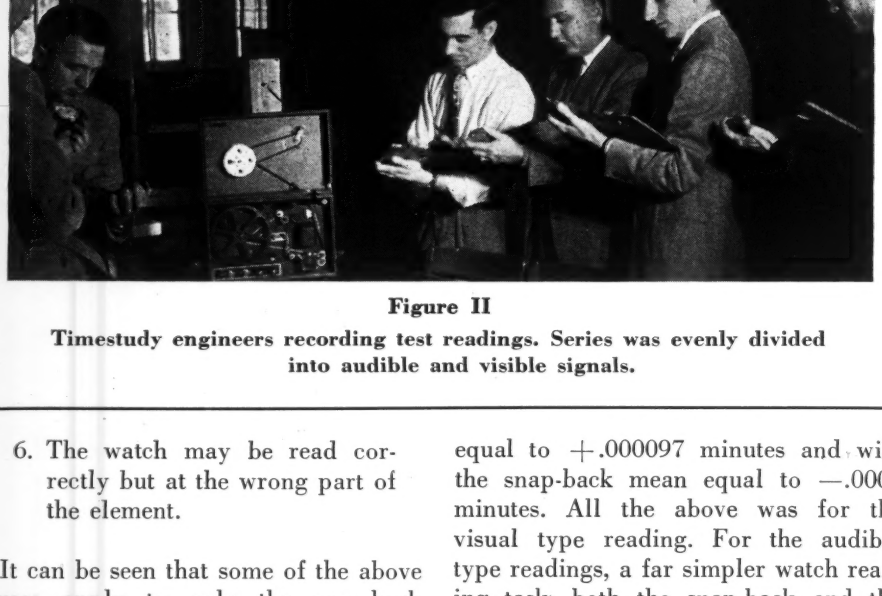


Figure II

Timestudy engineers recording test readings. Series was evenly divided into audible and visible signals.

6. The watch may be read correctly but at the wrong part of the element.

It can be seen that some of the above causes apply to only the snap-back method and others apply to both the methods.

ANALYZING THE DEVIATIONS

The errors made by the engineers were determined by finding the difference between the engineers' element times and the actual element times (computed using the tape velocities and the distance between holes). If an element time was greater than the actual time, the error was considered positive; if an element time was less than the actual time, the error was considered negative. The mean errors and standard deviations of the errors were then computed for both the snap-back and continuous types of readings and with both the visual and audible types of stimuli. Various statistical analyses were performed on these results in order to determine whether or not the differences between them were due to chance and also to find if any of the mean errors were not significantly different from zero.

The results obtained showed that the standard deviations of both the snap-back and the continuous methods were equal to .0081 minutes. Equal standard deviations were to be expected, since the standard deviation is a highly stable measure of variability. The mean errors, however, differed somewhat with the mean of the continuous type readings equal to +.000097 minutes and with the snap-back mean equal to —.0008 minutes. All the above was for the visual type reading. For the audible type readings, a far simpler watch reading task, both the snap-back and the continuous mean errors were not significantly different from zero.

SIGNIFICANCE OF RESULTS

The results indicate that:

1. When an operation being time studied presents element ends of an audible nature, the mean error arising from either the snap-back or continuous methods of watch reading is negligible.
2. When an operation being time studied presents element ends which require constant visual attention, the mean error of continuous type readings is less than the mean error of the snap-back type readings.
3. The magnitude of the error is independent of the size of time elements presented (for the element lengths used in this test).

It may be concluded that in the hands of a competent, experienced industrial engineer both the snap-back and the continuous methods of watch reading yield equally good results for all practical purposes. However, because of the nature of the methods, for relatively untrained personnel and for those with a lower level of skill in watch manipulation, it would still seem possible that the continuous method might well yield results of lesser mean error.

Reducing Costs in a Service Business

By WILLIAM J. BURNS and ROBERT B. SHAPIRO
Associated Business Consultants

A stabilized and selective direct labor percentage to the income dollar provides a basis for an advertising agency incentive plan.

AN advertising agency—as a service business — offers one of the most interesting challenges to a management engineer. How can costs be reduced and employees' earnings and profits increased in this type of business?

It is possible. It has been successfully accomplished in what seems to be a fairly representative "average" agency employing fourteen persons, including the two principals of the firm. The same results are attainable whether the group be 5 or 500.

In approaching the problem and its solution — it is necessary to disregard certain orthodox industrial approaches in the field of wage incentives, profit sharing and time study.

A searching analysis is required of the usual hurdles thought unsurmountable in a field where the end product is not concerned primarily with the conversion of *physical* things into end products such as metal fabrication. Work and effort measurement in the latter fields are comparatively easy.

MEASURING INTANGIBLES

Nevertheless, formally or informally, there *is* work measurement in any service business. It is well to list in the open the usual surface objections of "impossibility" such as: A copywriter is doing "creative" work — it can't be measured in terms of time, etc.; The same is true in the art department; "Our business is different — no two jobs or assignments are alike."

An Account Executive must do an indeterminate amount of "promotion", public relations and missionary work—or "things" to keep the client happy; Stenographers and receptionists will always take the "short" morning and afternoon coffee and coke respite; or finally, Genius cannot be hurried, etc., etc.

Despite all this, however, there are certain Facts. The profit and loss statement reflects total dollar income to the agency and total dollar employee labor or salary cost. No amount of conversation or skepticism can change the fact that unless there is an economic balance between work or "production" of the agency and its income — The Day of Reckoning must come. Agencies are made up of People—who, regardless of their skill or profession—still react to various types of stimuli successfully used in other fields of endeavor. All people usually work at non-stimulated paces of 60% to 70% of a potential 100% to 125% plus.

The techniques and solutions here described are based on a recognition of such facts and objectives. In the case in point, the management of the agency, with some professional assistance, approached the problem with an objective viewpoint. The interest and cooperation of the entire workforce was enlisted by group meetings, discussions and even the use of visual aids, etc. All intended to eradicate as much suspicion and prejudice as possible and to make the ultimate plan a "joint development" — even though the principles and plans were quite crystallized by the owners prior thereto. Threatening operating losses, due to increased agency costs and lower income, demanded action. The plan which was developed, provided better customer service and resulted in an increased employee "take home" salary of 27% and a reduction of operating costs by 11%. The net value and higher profits to the principals of the agency also includes assured retention of key personnel with higher and higher fixed commitments.

The office layout, lighting, procedures and policies were analyzed and studied. Many simplifications resulted which eliminated confusion, unnecessary walking, "shouting", file searching, etc.

A short simple manual of personnel policies and privileges were adopted which eliminated some existing confusion and chaos in regard to salary rates, rest periods, vacations, sick leave, promotion and overtime pay. Relative base salary rates were aligned, based on scientific Job Evaluation factors, in order to eliminate all internal wage inequities.

INDIVIDUAL PRODUCTIVITY

After such "cleaning of the air", the value of which cannot be underestimated, the main problem of increasing individual productivity was approached. The guiding principles adopted were — The use of "Group" assistance and pressure — The need for proportionate immediate individual reward—and the avoidance of long waits for dollar distribution. With this indispensable background and preliminary engineering, the proportional *Agency Income Sharing Plan* evolved.

The Plan is simple and easily understood by the Group. But, its adoption in a different set of circumstances could prove fatal unless carefully developed to the needs of any particular agency or personal service business.

By careful study of historical data and other engineering and accounting material, a stabilized agency direct labor percentage to each income dollar was adopted. The percentage is properly graduated in relation to potential total volume changes, both as to type and classification of accounts and dollars. Thus, the interests of all groups—employees and management were adequately protected in relation to matters beyond their control.

Budget Navigation by Dead Reckoning

By ALWYN M. HARTOGENSIS
Ebasco Services Incorporated

The art of forecasting can be acquired through intelligent use of this management "direction finder." Measurement of deviations—or variances—provides the statistical "soundings" to keep the budget "on course."

MANY companies are deterred from attempting to make long range forecasts of income because they have reason to believe that at the end of the period actual sales, costs, and income will be wide of the forecasted amounts. In some cases, the company or the industry may be subject in a large degree to unpredictable, chance, or otherwise uncontrollable events. In other cases, the inability to forecast with reasonable accuracy may be due to the lack of control of sales, costs, and profits, or simply to the absence in the management of the organization of someone who knows how to plan and forecast. These companies which cannot forecast for a year in advance usually are the ones in greatest need of such data if they are to maintain sound financial health.

The value of a long range forecast, such as for a calendar year, does not lie wholly in the attainment of the goal established. Of equal value is the ability provided to measure the deviation from the course established; to learn the reasons for such deviation in order to take future corrective measures where possible, and to evaluate the effect of such deviations by means of which the actual results can be foretold with greater accuracy as the year progresses. These possibilities represent the difference between managing and drifting.

The similarity of the problem leads to the field of navigation where a parallel is to be found in the art of navigation by dead reckoning. When it is not possible to establish the position of a ship by celestial observation or radio during its voyage, the practice is to lay out the course, or legs of each course on the map, correct the bearings for the estimated effect of wind, current, and other factors, and to estimate arrival at the end of each leg, where a new bearing must be followed, on the basis of elapsed time and indicated speed. A similar form of dead reckoning is available to those whose forecasts are subject to unpredictable variations.

EVALUATING VARIANCES

The dead reckoning process in budget navigation is simply the evaluation of variances and their effect on the original forecast. It reveals favorable tendencies in order that they may be exploited to the fullest extent, and unfavorable tendencies in order that action may be taken before the situation becomes serious.

In this process, which the writer calls "dead reckoning," current variances for each month are segregated on the basis of judgment and estimate whether they are, or in what part they are, recurring or non-recurring. Usually this is not difficult and meticulous accuracy is unnecessary.

Changes in methods, in salary and wage rates, in sales prices of products, and in prices of materials and services purchased lead generally to recurring variances. The addition or discharge of commitments of a recurring nature, such as subscriptions to periodicals, memberships in associations, and new financing or liquidation of interest-bearing debt also lead to recurring variances.

Efficiency or performance variances may be recurring or non-recurring, depending on whether there is reason to believe that the deviation from standard is permanent. Sales variances also must be judged on the basis of future expectations in the light of present conditions. In such case a variance may require reclassification as time confirms or denies the original classification as recurring or non-recurring.

Variances due to pure chance, weather, strikes, and similar factors usually are non-recurring. In some cases, they may be recurring for a limited, although perhaps unknown, period of time after which conditions may be expected to revert to normal or even to swing in the opposite direction. When the duration of substantial variances due to such cause, or to any other cause, is in doubt, it is advisable to provide both an optimistic estimate and a pessimistic estimate in order that both the best and the worst possibilities may be known and appropriate measures may be taken as far as possible.

THE DEAD RECKONING STATEMENT

The vehicle for projecting variances from forecast is the Dead Reckoning Statement shown as Exhibit I. This statement, prepared monthly, applies the estimated effect of variances to the original forecast for the year and thus arrives at a new forecast.

The items on the horizontal lines are the items of the regular statement of income. Although any customary arrange-

ment of items may be used, the segregation between variable costs and fixed costs is desirable for further analysis. It might, in some cases, be desirable and helpful to segregate variable costs by product groups and to show the margin over variable costs earned by each group. In such case, total fixed costs and expenses, which should not be allocated to product groups, is deducted from total margin from all groups. In the writer's opinion, margin for fixed costs, taxes, and profit is more significant than so-called gross (or manufacturing) profit.

Actual (column A) are the actual figures for the current month. Budget Forecast (column B) are the forecasted figures for the current month.

Variances for the current month, the differences between columns A and B, are distributed as Non-Recurring (in column C) or as Recurring (in column D). The principles for making this distribution were discussed previously.

PROJECTING VARIANCES

Projected Recurring Variances for Remainder of Year (column E) normally are the amounts in column D multiplied by the remaining number of months in the year. The example shown is a statement for the month of May, so the multiplier is 7. In the case of limited recurring variances, that is, those which are expected to recur for only a limited number of months and to return to normal before the end of the year, an appropriate multiplier (less than 7) would be used. Likewise, as the year progresses events which will affect only future months may become known and the estimated effect may be entered in this column.

Accumulated Variances of Previous Months are classified as Non-Recurring (column F) or as Recurring (column G), respectively. Ordinarily, the amount on each line in column F will be the sum of the amounts on that line in columns C and F on the statement for the previous month, and the amount in Column G will be the sum of the amounts in columns D and G on the statements for the previous month. However, there will be cases when a variance previously classified as recurring should be reclassified as non-recurring. It is not necessary that accumulated variances from previous months be reclassified; it only is necessary that the classification for the current month be correct in order to make the proper projection in column E.

Budget Forecast (column H) is the original forecast for the budget year. Non-Recurring Projected Variances (column I) is the sum of the non- recurring variances in columns C and F. Re-

GREAT NATIONAL MANUFACTURING COMPANY

DEAD RECKONING STATEMENT

FOR MONTH OF MAY, 1950 (000'S OMITTED)

	MONTH OF MAY 1950				PROJECTED RECURRING VARIANCES FOR REMAINDER OF YEAR	ACCUMULATED VARIANCES OF PREVIOUS MONTHS		PROJECTION FOR YEAR 1950			
	ACTUAL	BUDGET FORECAST	VARIANCES					BUDGET FORECAST	PROJECTED VARIANCES		CURRENT PROJECTION
			NON-RECURRING	RECURRING		NON-RECURRING	RECURRING		NON-RECURRING	RECURRING	
	COL A	COL B	COL C	COL D	COL E (COL D X 7)	COL F	COL G	COL H	COL I (COLS C+F)	COL J (COLS D+E+G)	COL K (COLS H+I+J)
NET SALES - Group A	452	465	* 13			91		4,870	78		4,948
Group B	708	615	81	12	84	* 17	26	7,349	64	122	7,535
Group C	721	648	13	60	420	34	112	8,240	47	592	8,879
Total Net Sales	1,881	1,728	81	72	504	108	138	20,459	189	714	21,362
VARIABLE COSTS AND EXPENSES											
MANUFACTURING - Materials	502	466	20	16	112	42	21	5,524	62	149	5,735
- Labor	292	277	* 5	20	140	27	62	3,273	22	222	3,517
- Burden	223	207	9	7	49	* 11	18	2,455	* 2	74	2,527
SELLING EXPENSES	68	61	7			21		716	28		744
ADMINISTRATIVE AND GENERAL EXPENSES	46	43	2	1	7	7	2	512	9	10	531
Total Variable Costs and Expenses	1,131	1,054	33	44	308	86	103	12,480	119	455	13,054
Margin for Fixed Costs, Taxes, and Profit	750	674	48	28	196	22	35	7,979	70	259	8,308
FIXED COSTS AND EXPENSES											
MANUFACTURING - Burden	126	124	2			6		1,404	8		1,412
- Burden Absorption Variance	* 48	* 7	* 41			* 26			* 67		* 67
SELLING EXPENSES	141	122	10	9	63	* 5	3	1,464	5	75	1,544
RESEARCH AND DEVELOPMENT	68	81	* 13			* 27		972	* 40		932
ADMINISTRATIVE AND GENERAL EXPENSES	91	94	* 3			* 3		1,128	* 6		1,122
Total Fixed Costs and Expenses	378	414	* 45	9	63	* 55	3	4,968	* 100	75	4,943
Operating Income	372	260	93	19	133	77	32	3,011	170	184	3,365
OTHER INCOME (Credit)	14	15	* 1			2		180	1		181
INTEREST AND OTHER DEDUCTIONS	63	61		2	14		1	732		17	749
Income Before Income Taxes	323	214	92	17	119	79	31	2,459	171	167	2,797
ACCRUAL FOR INCOME TAXES	123	81	35	7	49	30	12	935	65	68	1,068
Net Income	200	133	57	10	70	49	19	1,524	106	99	1,729

* Denotes red figure.

curring Projected Variances (column J) is the sum of the recurring variances in columns D, E, and G.

Current Projection (column K) is the sum of the amounts in columns H, I, and J. This current projection indicates the probable trend of earnings for the year based on the variances experienced and the expectation of their recurrence.

PROFIT ANALYSIS

A number of useful profit data can be derived from the Dead Reckoning Statement. The most pertinent are shown in Exhibit II.

For the month of May, the variable expense ratio is slightly over budget and fixed expenses are down substantially. This analysis shows that these changes, so far, are not expected to affect the breakeven point for the year. However, the sales forecast for the year should be exceeded by nearly 5% and net income after taxes will be increased by about 7% over budget.

Non-recurring variances in variable costs are about 30% less than would be justified by the non-recurring increase in sales for the current month; accumulated non-recurring variances in variable costs from previous months are in excess of the budgeted ratio (61%). Recurring variances in variable costs for the month are about in line with the budgeted ratio to recurring increase in sales, but also were excessive in previous months. Fixed costs show a downward trend, accelerating in the current month, but largely from causes which are not considered recurring.

The Dead Reckoning Statement, in the form exhibited, does not permit analysis of trends and effect of product mix. If such studies are desired, variable costs and expenses can be allocated to product groups and the profit margin from each group can be shown and analyzed.

It should be possible also to apply the dead reckoning method to forecasts of cash and to projected balance sheets. In the latter case, variances in the expected *changes* in amounts of balance sheet items should be analyzed, rather than the balance sheet items directly. Analysis should be applied to gross changes (increases and decreases, separately) rather than to net changes, if possible.

The Dead Reckoning Statement is an analysis of trends, rather than of absolute amounts. Therefore it is useful regardless of the inaccuracy of the original forecast or the size of the variance. It also is a teacher of the art of forecasting and should result in gradually improving forecasts where the practice of the art is new and is in inexperienced hands. With this type of variance projection, inability to forecast accurately should no longer vitiate the forecast.

EXHIBIT II

Great National Manufacturing Company

ANALYSIS OF PROFIT TREND

May 31, 1950

(000's omitted)

	Variable Expense Ratio*	Fixed Expenses*	Break-even Point	Excess Sales Over Breakeven Point		Ratio Net Income to Sales
Month of May 1950						
Actual	75.8%	$ 265	$1,095	$ 786	42%	10.7%
Budget	75.3%	285	1,154	574	33%	7.7%
Calendar Year 1950						
Budget	75.8%	3,422	14,140	6,319	31%	7.5%
Current Projection	75.8%	3,417	14,124	7,238	34%	8.0%

*Note: Variable expense ratios and fixed expenses are adjusted to determine the breakeven point *after* income tax.

MANAGEMENT BOOKS

Recently Received

The Decline and Fall of British Capitalism, by KEITH HUTCHISON, 301 pages, New York, Charles Scribner's Sons, $3.50

The Fatigue Allowance in Industrial Time Study, by MATTHEW A. PAYNE, 66 pages, Cleveland, Ohio, M. A. Payne, $2.50

How to Stay Rich, by DR. ERNEST KLEIN, New York, Farrar, Straus & Co., Inc., 224 pages, $2.75

Creation of Income by Taxation, by JOSHUA C. HUBBARD, 239 pages, Cambridge, Massachusetts, Harvard University Press, $4.00

Textbook of Office Management, by WILLIAM H. LEFINGWELL and EDWIN M. ROBINSON, 649 pages, New York City, McGraw-Hill Book Company, $5.00

How to Plan Pensions, by CARROLL BOYCE, 485 pages, New York, McGraw-Hill Book Company, $5.00

Cases of Public Personnel Administration, by HENRY REINING, JR., 132 pages, Dubuque, Iowa, 1949, Wm. C. Brown Company, $3.00

Wage and Salary Fundamentals and Procedures, by LIONEL B. MICHAEL, 330 pages, New York, McGraw-Hill Book Company, $4.50

Office Methods, Systems, and Procedures, by IRVING A. HERRMANN, 539 pages, New York City, The Ronald Press Company, $7.00

Introduction to Labor Economics, by ORME W. PHELPS, 554 pages, New York City, McGraw-Hill, $4.50

Labor Roundup

By Paul A. King

Assistant to Vice President for Personnel Bigelow Sanford Carpet Company; Member of the New York Bar

IN THIS ISSUE

- **DO YOU "SELL" YOUR SUGGESTION SYSTEM TO SUPERVISION?**
- **HOW TO TRAIN FOREMEN IN GRIEVANCE HANDLING**
- **HOW REPORTS REDUCE COSTLY ARBITRATION OF GRIEVANCES**
- **QUESTIONNAIRE TECHNIQUE MAKES FACTS STICK**

Selling The Suggestion System To Supervisors

Most companies with suggestion systems have booklets describing them to the workers. Relatively few make a similar effort to enlist the aid of the supervisory force in putting the suggestion system over. *General Electric* is one of the few.

The title of the booklet this company distributes to its supervisors is "What Supervisors Should Know About The Suggestion System." Its objective is to sell the system to the employees. Quoting one paragraph:

"The suggestion system operates through you in all contacts with employees. Because you are the keyman, the success of the system lies in your hands.

"The Usefulness of this valuable employee-relations instrument depends to a great extent upon how you employ it. Active sponsorship of the System by you will show itself in active participation by employees.

"Attitudes toward the Suggestion System very largely will be fashioned by your own."

Foremen Booklet Teaches Grievance Handling

Glenn Gardiner, Vice-President of the Forstmann Woolen Co., has repeatedly pointed out that employee relations is not the exclusive job of the Personnel Department. It's up to the foreman, as the representative of management, who more often than any one else in the plant comes into contact with the worker, to create a good relationship between the worker and the company.

Difficulty often is that the foreman is too busy with the technical side of his job to be sufficiently concerned with the human relations aspects of his job.

Many companies today furnish their foremen with training in sound human relations. These foremen also secure a training in the terms of the union contract and their application. *The Ternstedt Division of General Motors* goes one step further and instructs its foremen in the proper handling of grievances. Each foreman receives a copy of "*It's a Deal,*" which points out in simple language how to talk to the union representatives about grievances, how to turn a complaint down tactfully, how to write up the minutes of a grievance review meeting fairly and tactfully, and so on. Instruction along these lines is another step toward the development of a foreman group in America skilled in the proper management of people.

"Accident of The Month" Feature Promotes Safety

"*Accident of The Month*" is the title of a special feature of "*Bull Ladle,*" the employee magazine of *Stockham Valves & Fittings of Birmingham, Alabama.* It is one of the ways that this company makes its workers safety conscious.

The last page of the publication is devoted entirely to the feature. Six arrows on the page lead the reader's eye to a description of these items: (1) the injured; (2) the scene; (3) the accident; (4) the result; (5) the cause; and (6) the remedy.

A cartoon on the page dramatically pictures the accident.

The feature is an adaptation from one appearing in "*Philnews,*" the publication of *Phillips Petroleum, Bartlesville, Oklahoma.*

Questionnaire About Annual Report Makes Facts Stick

Foremen of the *Bigelow-Sanford Carpet Company* receive a copy of the Annual Report sent to stockholders, a copy of the simplified report sent to employees, and at the beginning of the year, hear the President of their Company describe its operations for the previous year.

A final device in making the facts about the Company stick is a questionnaire distributed to each foreman when he attends the session conducted by the President. The questionnaire—"How well do you know your company?"—consists of multiple choice questions about some of the Company's key operations.

There is one thing about this questionnaire that makes it different. It is not collected and graded; the answers are on the last page. Its only purpose is to give the foreman a quick check sheet—makes the facts stick.

Guide-Book Simplifies Preparation of Annual Report

Open season on Annual Reports is about over. But here's a tip that you might want to take advantage of next year. *The Financial World,* an investment publication, has issued a stockholder relations Guide-Book which covers the Annual Report from A to Z.

Some of the topics covered are: Cost of annual reports, reports for employees, designing the report, and distributing the report. The Guide-Book goes beyond the Annual Report and covers dividend inserts, proxy statements, dividend record advertising. Price: $1.00. For a copy write to *Financial World,* 86 Trinity Place, New York 6, New York.

Contest for Workers' Kids Encourages Worker Safety

The employee publication of *B. F. Goodrich of Akron, Ohio,* remarked that "children of BFG employees are scratching their heads and wearing down their pencils over something besides school problems these days. They're starting to work on their entries in the Boys' and Girls' Safety Contest."

(Labor Round-Up, continued from previous page)

The publication, *Circle-News*, was referring to the safety contest sponsored by the Safety Committee of the Foremen's Club as a method of increasing safety-consciousness among company employees.

The children of employees vie for cash prizes for the best stories on safety or pictures or cartoons on the subject.

Grievance Report Cuts Down Costly Arbitrations

Grievances that go to arbitration are costly in both time and money. Proper investigation of a grievance by the top person in the industrial relations set-up of the company may avoid many arbitrations —may even help the company win a higher percentage.

To decrease the number of arbitrations —particularly lost arbitrations—one company requires its representative in the grievance procedure to prepare a special report after the third step has been reached. The report is submitted to the Industrial Relations Manager who, by careful analysis, can recommend whether to settle at the fourth step or proceed to arbitration. Another advantage of the report is that it represents about 90% of the preparation of the arbitration case and thus saves last-minute feverish activity if the case is to be heard.

The report covers these items:

(1) What is the union grievance about;
(2) The company's answer to the grievance;
(3) All the facts, as the company sees them;
(4) All the facts, as the union sees them;
(5) Provisions of the contract that bear on the case;
(6) Precedent or past plant practice that may bear on the case;
(7) The union's probable arguments;
(8) The company's argument;
(9) What do arbitration awards have to say about similar cases;
(10) What do NLRB and court cases say about it;
(11) How would an arbitrator look at the company's case;
(12) Exhibits and evidence, as copies of caution slips, time studies;
(13) What does the cost-engineering department recommend (where rate is involved);
(14) What does department head recommend;
(15) What does the plant manager recommend?

Management Bookshelf

ADVANCED TIME AND MOTION STUDY

The Handbook of Advanced Time — Motion Study by L. ARTHUR SYLVESTER, Funk & Wagnalls Company, New York, 1950. 273 pp. $5.00.

THIS book is a comprehensive work of inestimable value to the Industrial Engineer — student or veteran alike.

It is unique in that it devotes several chapters to such topics as *"The Human Side of Time-Motion Study,"* *"Personal Contacts,"* *"A Fair Day's Work,"* and *"Labor Relations."* Any experienced engineer knows the importance of these phases of time study and methods work. However, these subjects are not usually given much consideration in the majority of text books and college courses.

In his introduction and throughout the book, the author dwells on some of the fallacies and deficiencies found in the various types of incentive plans and procedures. This approach is good in that it spotlights the pitfalls which the engineer may encounter in time and motion study work. It further illustrates the crying need today for standardized techniques for incentive plans such as we have for methods work.

The text is generously supplemented with graphs and tables which add much to the interest and understanding of the reader. There is no doubt that this "HANDBOOK OF ADVANCED TIME-MOTION STUDY" is the product of a sound-thinking industrial engineer with a wealth of technical, practical, and "human" experience. It should be on *every* industrial engineer's bookshelf.

R. L. PITFIELD
Supervisor, Standardization Division
The Curtis Publishing Company

GUIDE TO VISUAL AIDS

Films in Business and Industry by HENRY CLAY GIPSON, McGraw-Hill Book Co., Inc., New York and London, 1947. 291 pp. $4.00.

MR. GIPSON is president of Filmfax Productions, a non-theatrical film producing company.

Films in Business and Industry, as the fly leaf suggests, is "a detailed and non-technical manual for business executives, sales managers, advertising managers, personnel managers, and others concerned with the application of visual aids to the problem of industry."

The book abounds in illustrations and is especially good in the semi-technical aspects of film production contained in the chapters on *"Selecting a Producer,"* *"How Much Should a Film Cost?"*, *"Supervising a Producer,"* *"The Script,"* and *"How a Film is Photographed."* Not only is the 16mm film well covered but the 35mm slide film is likewise fully explained. The possibilities and costs of these two media are detailed so that a business executive who has had little or no experience with them can gain a better knowledge of them. A glossary of terms at the end of the book should be helpful to the amateur and semi-professional photographer as well as the newcomer to the visual aids field.

The book gave evidence of haste in its preparation and in its printing. If the author had an outline, it was in little evidence in the final printing despite occasional subtitles throughout the text. Short chapters and an abundance of pictures offset this objection in part. Particularly noticeable in a book on visual aids was the absence of charts to illustrate some of the scores of data presented (e.g., pie charts, bar charts, and even ordinary rectilinear charts).

Another important omission was the absence of approved source material. Percentage learning figures through seeing were bandied about throughout the text, but the only authority quoted was that of another visual aids organization. Small errors of punctuation and sentence structure and the omission of eight pages of text material in three chapters of the copy reviewed by the writer should be charged to the publisher and his staff of proofreaders and book inspectors.

Another criticism is the author's failure to emphasize fully the pitfalls of the "art" in its present state: careless handling of films by processors; long delays in processing; and failure to reduce

costs substantially. The author mentions union restrictions, for example, several times in his text; but not once did he mention the greatest of all restrictions to either the progress of the art or the greatest cost-reduction possibility: high tariffs on raw and finished film and on equipment and accessories. These and many more day-to-day defects either were not mentioned or were glossed over.

Valuable Reference Source

Despite these mechanical and compositional defects and subject-matter omissions, the book is well worth reading and should be in the library of those contemplating tailor-made or commercially available films. Sections dealing with the care and handling of films and equipment are particularly valuable to those starting a visual aids program. Indeed, such sections as that dealing with "*Projection Procedure*" (pp. 246-250) are worth reproducing as guides to the people in your own organization who may be operating projection equipment.

HAROLD R. NISSLEY

INSIGHT INTO DIRECTORSHIP

What Every Corporation Director Should Know—A Handbook for the Corporate Executive

BY PERCIVAL E. JACKSON

The William-Frederick Press. New York, 1949. 198 pages. $3.50

THE purpose of this book, in the words of the author, is "to inform the corporate executive of the duties and disabilities of the director and the correlative obligations of the operating executives." The author is a member of the New York Bar and the book deals mainly with the legal aspects of the relations between the directors of a corporation and its executives and stockholders.

The fact that in large present day corporations stockholders numbering many thousands, scattered all over the country, have little to say about the conduct of their companies' business in which they have invested their savings, throws the entire responsibility for the control of the companies on their Boards of Directors.

Prior to the creation of the *Securities and Exchange Commission* directors did much as they pleased and, short of committing acts of larceny, the practice of directors making use of their position to feather their own nests was generally taken for granted. Under the act creating the Commission such practices have been outlawed and directors are made liable not only for acts of commission but even of omission if it can be shown that failure to act, through negligence or design, resulted in losses to the company.

MANAGERS AND DIRECTORS

Just as in politics citizens vote for candidates put up by political parties or "machines," so in corporations, the helpless, scattered stockholders vote, mostly by proxy, at the annual meetings for a list of candidates put up by management. Only on rare occasions do stockholders have a choice between rival slates when a contest breaks out between strong opposing interests. While in theory management is supposed to take its orders from the Board of Directors in practice the directors owe their positions on the board to the management and therefore are subservient to the latter. In many corporations several, and in many cases a majority of the board, consist of management executives. In large corporations both management and directors own, as a rule, but a tiny fraction of the stock of the company and the bulk of their rewards comes not from dividends on their stock but from salaries and bonuses. It is the bonuses, which usually are based on the earnings of the company, that make the interests of management and stockholders more or less identical.

The book deals in detail with the relations of directors to management, the qualifications of an ideal director, the liabilities incurred by him under present laws, and the divergence of theory and practice in corporate management.

It is a very competent, clear and concise presentation of one of the most important aspects of our free enterprise system. Although meant for the director and executive, the book can be read with interest and profit by anyone desiring to gain an insight into the inner workings of American corporations.

N. I. STONE

LABOR AND ECONOMICS

Economics of the Labor Market BY JOSEPH SHISTER. Philadelphia, 1949: J. B. Lippincott Company. $4.50.

Labor Economics and Labor Relations BY LLOYD G. REYNOLDS. New York, 1949: Prentice-Hall, Inc. $4.75.

THE faculty member planning the contents of a new course in labor economics has more often than not been critical of available texts. Texts not only get out of date quickly but rapid changes in legislation and trade unionism suggest the need for new emphasis. Also, an increase in the number of special courses in labor legislation and social insurance have made it unnecessary to try to get all the theories and facts related to labor developments into one crowded course in labor economics.

The two books under review were written to fill the need for a text that would present the historical background of trade unionism more succinctly and would relate theory much more realistically to the current scene. The authors of both books were associated with the *Labor and Management Center* at *Yale University*. *Professor Shister* has recently moved to *The University of Buffalo*. Both men have had sufficient experience in research and teaching to have developed ideas of their own in regard to labor economics and methods of presenting the subject to the college student. The two texts, which differ substantially in content and presentation, presumably represent the different conclusions of the two men.

"THEORY ANCHORED IN REALITY"

The title of *Professor Shister's* book, "*Economics of the Labor Market*" reflects the author's approach, and the preface explains his reasons for choosing the approach. He states that the "text grew out of the author's need for grouping between two covers an analysis of the principal features of the labor market, which would take account of the tremendous advances in knowledge and approach that have been made . . . in the past decade or so . . . without making a plea for 'institutionalism', the stand has been taken that while economic theory is indispensable for an understanding of the labor problems of our generation, such theory must be anchored in reality."

The author has analyzed the principal economic theories of the labor market only to show how seldom they are "anchored in reality." This is particularly true in his discussion of wages.

In two chapters, "*Wages: Some Pre-*

vailing Views and Their Shortcomings," and "*A Little More Realism,*" he analyzes wage theories, demonstrates how far and in what way they err, and then attempts to build up a theory in terms of four basic elements, (1) management, (2) trade unions, (3) the individual worker, and (4) the government. It seems to this reviewer that more space than necessary has been given to an analysis of theories that are concluded to have comparatively little validity today, and that the effort to develop a theory along with a description of the forces involved in the actual determination of wages is rather strained.

The chief strength of this book is in bringing together in well-organized and concise form the principal current ideas and facts in regard to the institutions and operation of the labor market. Its chief weaknesses are in the author's own comments and conclusions which are not consistently well thought out, or sufficiently supported by fact. Some are excellent. Others are open to challenge.

For example, the author implies (p. 176) that prior to general unionization the employer always made wage increases on an individual basis according to the worker's past record. There is no suggestion that many companies long followed the policy of paying at least the going rate in the community or that other factors outside the individual plant and individual worker may have resulted in general increases to particular groups if not to the whole plant.

Later, (p. 266) in discussing job evaluation the statement is made that "Prior to the establishment of job evaluation, the wage structures in most unorganized plants were in a very chaotic condition. . . . In unionized shops such situations are unlikely to develop." Many employers would be willing to testify that, contrary to the latter statement, union pressures favoring one or another group of workers have been an important factor in the growth of an irrational wage structure.

However, in spite of certain weaknesses of style, the book is a substantial addition to text books in labor economics and may well fit the planning and needs of many teachers.

Professor Reynolds, in the preface to "*Labor Economics and Labor Relations*" states, as *Professor Shister* does in his preface, that he has tried to concentrate on principles and issues and to keep detailed factual description to a minimum. It seems to me that *Professor Reynolds* is the more successful in this aim.

DEVELOPMENTS AND ANALYSES

Reynolds does not cover as fully as *Shister* certain aspects of the labor market — notably unemployment — but what he covers is more closely tied together and more impressed with his own thinking. The reader is not continually kept aware of the structure of his presentation but absorbs his analysis of the economics of collective bargaining quite easily. He is especially successful in presenting historical developments and economic analyses concisely and yet without giving the reader the feeling that details essential to real understanding have been omitted.

"*Labor Economics and Labor Relations*" gives much less space and attention to theory, following the author's belief that it is a waste of time to build up theories to straw men proportions in order to demolish them "amid general rejoicing." It is unfortunate that a serious discrepancy between a chart (p. 435) and discussion of it occurs in one instance when a theory (*Clark's* concept of the marginal productivity principle) is discussed at considerable length.

The teacher who wants a text summarizing the range of thinking in labor economics in the light of recent developments is likely to look with favor on "*Economics of the Labor Market.*" The teacher seeking a text emphasizing the economic and historical background of present-day collective bargaining presented in terms related to the student's general experience will prefer "*Labor Economics and Labor Relations.*"

HELEN BAKER

GUIDES TO CONFERENCE EFFECTIVENESS

Conference Methods in Industry, by HENRY M. BUSCH. 107 pages. 1949: Harper and Brothers. $1.50.

Making Conference Programs Work, by M. F. STIGERS. 256 pages. 1949: McGraw-Hill. $3.50.

It is hard to put into words the differences between these two books. In the first place, both authors are agreed upon the need for conference programs

(*Continued on page* 25, *Col.* 1)

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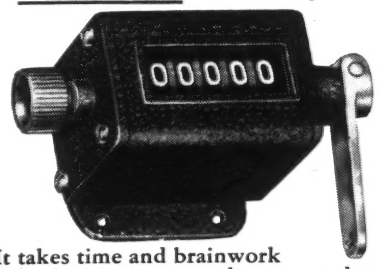

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VEEDER-ROOT Inc., Hartford 2, Conn.

(*Continued from page* 24, *Col.* 2)
in industry and upon the need for careful training and practice on the part of conference leaders. Both are agreed that a conference program is only a part of the total training program and that it does not (or should not) supplant other phases of training. Again, both authors decry the extravagant claims made by the proponents of conferences, but at the same time both authors are convinced that through conferences—almost is one tempted to say *only* through conferences—can certain values be established and maintained, especially in human relationships. A conference program must be adequately thought out and closely integrated to the regular channels of communication between front office and shop. The program must not be left to the tender mercies of unskilled chairmen ("Charlie, the boss says we gotta have a conference program, and so you take care of it, willya?)" Otherwise the conference program will (except through sheer luck) succeed in actually worsening the conditions it was supposed to better.

Both books are texts or manuals with a strong "how to do it" flavor. Both are the result of years of successful experience in establishing and developing conference programs. Yet the two books are as different almost as day from night.

Professor Stigers has written a textbook that does not pretend to be more than just that. It explains what a conference is, how to plan for it, and how to fit it into the total training program. It tells how to conduct a conference and how to evaluate it. The book includes many samples of conference reports for study. Although the book would seem to be aimed at students without much experience in industrial relations, a director of training programs could use it as the basis for establishing a series of training meetings in conference leadership.

Professor Busch's slender volume also tells what a conference is, how to plan for it, and how to conduct it. This manual, however, is more in the nature of a guide for busy executives who probably have had some experience with conferences. Being faced with vexing and baffling problems which seem to keep cropping up daily, such persons usually have tried with varying degrees of success every remedy available, including conferences. The executive who insists that there must be "*some* means of solving our difficulties and *some* means of composing our differences" would do well to examine again the conference method through Professor Busch's analysis and plan of approach. The best will in the world is no substitute for a trained technique, but on the other hand a smooth and flawless skill, as the author ably points out, is effective only as it is backed by a genuine desire to maintain the values of democratic American citizenship.

The PHILADELPHIA CHAPTER of the S.A.M. heartily endorses and wishes to call to your attention to the

UNIVERSITY OF PENNSYLVANIA, THE WHARTON SCHOOL

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Dr. George W. Taylor, Professor of Industry, Wharton School. "The Acceptance of Technological Change by Workers and Unions."

Dr. Robert P. Brecht, Vice-President, NOMA; Chairman of the Industry Dept., Wharton School. "The 'Logic of Efficiency' and its Acceptability in Practice."

Jack Schwab, Manager, New England Division, Methods Engineering Council; "Predetermined Standards for Work Measurement and Their Value."

Nicholas A. Martucci, Executive Vice-President, Flexitallic Gasket Co., Camden, N. J.; "Practical Applications of Measurement and Simplification in Both Shop and Office."

Sol Barkin, Research Director, Textile Workers of America, N.Y.C. "The Union View of New Methods and Measurement Techniques."

Jackson C. Lewis, Chief Industrial Engineer, Stokes Molded Products, Trenton, N. J. "A Critical Evaluation of Effort Rating and the Concept of Normal."

Ben S. Graham, Director of Future Demands, The Standard Register Co., Dayton, Ohio. "Work Simplification, A Tool in Human Relations."

David Ginsburg, Manager, Philadelphia Division, The Wheeldex Company, "The 'How to do it' of Office and Shop Systems Work."

Phil Carroll. "Standards Setting and Cost Control."

Richard Neumaier, Office Systems Consultant. "Mechanization in the Office."

Dr. Rexford Hersey, Industrial Psychologist, Wharton School Faculty. "Does the Industrial Engineer and Office Systems Analyst Need to be a Psychologist?"

Jerome Barnum, Jerome Barnum Associates, Harrison N. Y. "Selling and Training Aids in Shop and Office Projects."

Some Companies that have already signified their attendance.

The Pennsylvania Railroad	Riverside Metal Co.	Sears, Roebuck Co.	Bell Telephone Co. of Penna.
SKF Industries	Brooks Shoe Co.	Line Material Co.	Electric Storage Battery Co.
J. B. Stetson Co.	Aluminum Co. of Canada	Link Belt Co.	Wilton & Schneider Co.

EXPENSES: REGISTRATION FEES $150.00

This includes the use of library facilities, materials and supplies, mimeographed notes and use of all laboratory equipment.

LABORATORY DEPOSIT $25.00

LIVING EXPENSES

Luncheons will be furnished at cost. Living accommodations will be arranged, for those requiring them, in the Theta Xi Fraternity House at $2.50 per day. All communications should be addressed to V. DONALD SCHOELLER, Conference Director, 300 Logan Hall, Wharton School, University of Pennsylvania, Phila. 4, Pa.

June 19 to June 30, 1950 in the Frederick Winslow Taylor Management Laboratory

ACT NOW—REGISTRATIONS ARE LIMITED!

SOCIETY NEWS

THE CLEVELAND MANAGEMENT CLINIC sponsored by S.A.M., in cooperation with 14 other professional and trade associations, will be held on May 16-17 at the Hotel Carter in Cleveland, Ohio. The National Director from Cleveland extended a cordial invitation to all S.A.M. members to lend their efforts to stimulating interest in attendance at the meeting. The speaker at the Tuesday afternoon session, May 16, will be Dillard E. Bird, President of S.A.M. His subject will be *"The Supervisor — Key to Productivity."* Robert C. Rick, Production Manager, American Greeting Publishers, Inc., is Chairman of the session.

WASHINGTON CHAPTER'S SPRING WORKING CONFERENCE drew a capacity crowd for its two days of sessions on April 19 and 20. Theme of the conference was, "How to Do A Better Job of Management." Management men from Military and Government Agencies, Bureaus, Services, Departments and Commissions participated in the panels and attended the sessions. The Program Committee, under the chairmanship of George D. Hansen, included: Mary Cushing Niles, Program Vice President; Jess Larson, Dinner Meeting Vice President, Virgil L. Couch, Ivan Asay, William R. Divine, Vernon D. Northrop, Ross P. Pope, Carl Tiller, Herschel Walling, Ray Ward and W. S. Williams.

Chairmen of the Case Clinic Discussion groups were: Leo L. Miller, Executive Assistant, Federal Security Agency; James A. Bennett, Director, Bureau of Prisons, Justice; Edward B. Wilber, Budget Officer, Dept. of State; Lyle F. Watts, Chief Forest Service Agriculture; Francis P. Brassor, Chief, Administrative Services, Civil Service Commission; Lawson A. Moyer, Executive Director, Civil Service Commission; W. A. Minor, Assistant to the Secretary of Agriculture; Elmer B. Staats, Assistant Director of the Budget.

The HUDSON VALLEY CHAPTER heard Mr. Harold Maynard, President of the Methods Engineering Council, present a talk on *"Methods — Time Measurement,"* at their May meeting.

Mr. K. O. William Sandberg was Chairman of the meeting.

ATTENDANCE at the *Fifth Annual Time Study and Methods Conference,* April 20 and 21, reached a record-breaking high of over 1,900. This compares with 1,470 in 1949.

By formal action the Board of Directors commended the Conference Chairman and his Committee, the President, and the National Office on a most outstanding Conference.

The Conference received national attention through the pages of the *New York Times* in stories by Hartley W. Barclay and the *New York Herald Tribune* represented by Max Forester. Major daily and Sunday newspapers and magazines throughout the country carried news and feature stories of Conference speeches.

CHAPTER OFFICER CONCLAVE The National Board of Directors, at their April 22 meeting, decided to hold regional meetings of the Chapter Officer Conclave in place of one National meeting as original scheduled. The first regional meeting will cover the Eastern area and will be held on June 2 and 3. The President indicated that he would appoint a committee to develop plans for this meeting and to implement the program formulated.

NEW NATIONAL OFFICERS . . . 1950-51

The Board of Directors of the Society for Advancement of Management has elected the following slate of Officers for the fiscal year 1950-51 by unanimous vote.

President ..... Dillard E. Bird
Vice President ..... Leon J. Dunn
Secretary ..... Howard K. Hyde
Treasurer ..... Bruce Payne

MILWAUKEE CHAPTER'S April meeting centered around a panel discussion on the question, "Have we lost our employees?" Main speakers of the panel were a group of past Presidents of the Chapter. They included: *George W. Bolln of Cutler-Hammer, Inc.* (moderator), *Harry A. Torrence of Chain Belt Company, F. L. Larkin of Wisconsin Electric Power Company,* and *A. F. Sheller of Phoenix Hosiery Company.*

INDIANAPOLIS CHAPTER presented a Methods-Time Measurement Forum on April 5. On April 12, *Mr. John Rench,* Chief of Maintenance Incentives, *Eli Lilly & Co.,* presented a talk illustrated by motion picture film on the general procedure of applying MTM at Eli Lilly & Co. Both meetings were planned by the following Committeemen: *Richard R. Hall, Carl Darnell, Glen Clarke,* and *George Myers.*

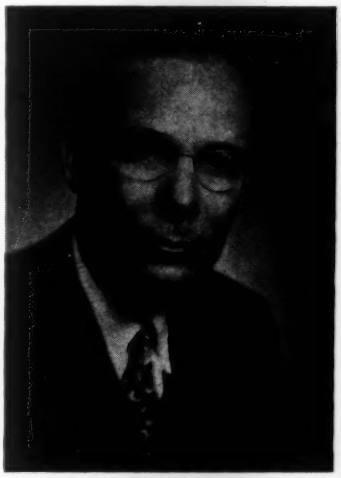
NATIONAL PRESIDENT, DILLARD E. BIRD, presents charter to Lloyd A. Lynd, Jr., President of new S.A.M. Student Chapter at the University of Oklahoma.

MODERN INDUSTRY AWARD JUDGES

Shown below are the judges and the donor of the "Modern Industry Award."

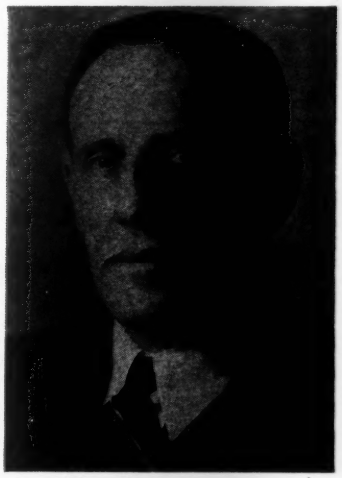
The committee of five judges, under the chairmanship of W. L. McGrath, will evaluate material submitted by Chapters to determine which completed project contributes the most towards advancing Scientific Management. The award is to be used by the winning Chapter to develop another project which will further the advancement of the science of management in the area served by that Chapter. Rules of the competition appear on page 14 and eligibility requirements on page 28.

WILLIAM L. McGRATH (Chairman), President and General Manager of the Williamson Heater Co. Past President of S.A.M. (1947-48). Past President and Director, Cincinnati Chamber of Commerce. Director of Cincinnati Gas and Electric Corp. and Provident Savings Bank and Trust Co. Past President, National Warm Air Heating & Air Conditioning Assn.



HERMAN F. WILLKIE, Vice President in Charge of Production and Director of Joseph E. Seagram & Sons, Inc. and its subsidiary corporations. The author of four books and more than fourteen published articles on Industrial Management, Agriculture, and Chemistry subjects; and the holder of many U.S. and foreign patents. A Charter Member of the Louisville Chapter of S.A.M.

GEORGE F. GANT, General Manager, Tennessee Valley Authority, Knoxville, Tennessee. Formerly associated with the U.S. Office of Education and the Federal Security Agency. A member of the Society for Public Administration and the Committee on Southern Regional Studies and Education.



WALTER C. WEIDLER, Dean of College of Commerce and Administration, Ohio State University, Columbus, Ohio. Co-author of "The Principles of Marketing" and "An Introduction to Business Management." Member of American Economics Ass'n. and National Association Teachers of Marketing and Advertising.

HAROLD F. SMIDDY, Vice President and General Manager, Chemical Dept.; and General Manager, Air Conditioning Dept., the General Electric Company. Formerly a partner in the firm of Booz, Allen & Hamilton; and Director and Head of the Operating and Sales Departments of Ebasco Services, Inc. Vice President, Management Research and Development for S.A.M. Member of A.I.E.E., A.S.M.E., and A.M.A.

DONOR

ELDRIDGE HAYNES, Publisher of "Modern Industry," sponsor of the award. Mr. Haynes in announcing the award said:

"It is our hope that this award will encourage more projects which will at once advance our knowledge of management methods and promote a better public understanding of the vital part management does and must continue to play to keep America free and prosperous."